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**Breaches of International Law regarding Nuclear Weapons and Suggestions
for the New NPT Regime**

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TABLE OF CONTENTS

INTRODUCTION.....	3
1. NON-PROLIFERATION AND SAFEGUARDS UNDER ARTICLE I AND II OF THE NPT.....	9
1.1. Interpretation of Article I of the NPT	9
1.1.1. Missile sales between the US and the UK under Article I	10
1.1.2. Reactions of the NWS to Indian nuclear weapon development under Article I	10
1.1.3. Reactions of the NWS to Pakistani nuclear weapon development under Article I.....	13
1.2. Interpretation of Article II of the NPT	15
1.2.1. Iranian Nuclear Weapons Development.....	16
1.2.2. The DPRK Nuclear Weapons Development	17
1.3. Other Violations of International Law regarding the Iranian Nuclear Crisis.....	19
2. DISARMAMENT UNDER ARTICLE VI OF THE NPT.....	23
2.1. Cessation of the Nuclear Arms Race	26
2.1.1. Nuclear Weapons Deliveries	30
2.1.2. Nuclear Missiles Defence System.....	37
2.1.3. Nuclear Weapon Ban Treaties	38
2.2. Nuclear Disarmament and Treaty on General and Complete Disarmament.....	40
3. OTHER INTERNATIONAL LAW REGARDING NUCLEAR WEAPONS.....	42
3.1. Legality of Use of Nuclear Weapons under International Law	42
3.1.1. ICJ Advisory Opinion	42
3.1.2. Use of Nuclear Weapons under the International Humanitarian Law.....	46
3.1.3. Use of Nuclear Weapons under the International Environmental Law	48
3.2. Non-NPT Nuclear Powers Cases.....	48
4. SUGGESTIONS FOR THE NEW NPT REGIME	51
4.1. Proliferation Optimists vs. Proliferation Pessimists	51
4.2. Suggestion of New Contents for the New NPT Regime.....	53
4.2.1. New NWS in the New NPT Regime.....	53
4.2.2. New Contents which can be applied in the New NPT Regime.....	53
CONCLUSION	59
ABBREVIATIONS	63
REFERENCES.....	65

INTRODUCTION

The Nuclear Non-Proliferation Treaty (NPT) is the most influential and crucial treaty in the nuclear weapons world.¹ The NPT has 191 states parties, and more countries have ratified the NPT than any other disarmament agreements.² The treaty divides states into the two-tier system: the nuclear weapon states (NWS) and the non-nuclear weapon states (NNWS). Only five states, the United States of America (US), Russia, the United Kingdom of Great Britain and Northern Ireland (UK), France and China, are recognised as NWS in the NPT regime. The treaty gives different obligations depending on the tier of the states in the treaty. The NWS should not transfer nuclear weapons to any recipient while the NNWS should neither receive nor manufacture nuclear weapons.³ Also, the NNWS were obliged to accept safeguards of the International Atomic Energy Agency (IAEA) to prevent the use of nuclear energy for military purpose, whereas the NWS were obliged to pursue negotiations on effective measures relating to nuclear disarmament.⁴ Although the object of Article VI of the NPT is not the NWS but “Each of the Parties to the Treaty”, the disarmament clause is recognised as an obligation for the NWS since only legal nuclear weapons are allowed to those NWS in the NPT regime. In 1995, the NPT state parties extended the Treaty’s initial lifetime of twenty-five years indefinitely. However, the NPT regime is facing many obstacles. Not only from the outside of the NPT regime by India, Israel, Pakistan and the Democratic People’s Republic of Korea (DPRK), but also from the inside of the NPT by the NWS and Iran.

The purpose of the thesis is to identify illegal acts regarding the development of nuclear weapons by nuclear-armed states and prove that the current regime is not effective enough to meet the aim of the NPT. Some proposals which will prevent those unlawful acts also will be suggested in order to make the world a safer place from nuclear weapons. Nuclear-armed states can be defined as states that have a nuclear capacity to strike other states with nuclear weapons. Therefore, nuclear-armed states consist of not only five NWS in the NPT regime but also include, non-NPT nuclear powers, the DPRK, India, Israel and Pakistan.

¹ Treaty on the Non-Proliferation of Nuclear Weapons (NPT). Moscow, London and Washington DC 01.07.1968., e.i.f. 05.03.1970.

² Treaty on the Non-Proliferation of Nuclear Weapons (NPT), United Nations Office for Disarmament Affairs, <https://www.un.org/disarmament/wmd/nuclear/npt/> (01.02.2019).

³ NPT, *op. cit.*, Art 1 and Art 2.

⁴ NPT, *op. cit.*, Art 3 and Art 6.

Obstacles from the inside of the regime are following. Although the NWS should not transfer nuclear weapons to any recipient, the US has sold its missiles to the UK.⁵ Also, the NWS should not encourage any NNWS to manufacture nuclear weapons. However, the US made an agreement which gives India *de facto* nuclear power status. These issues should be critically analysed whether they are against Article I of the NPT.

Regarding the Iranian nuclear crisis, the Joint Comprehensive Plan of Action (JCPOA) was concluded in 2015. The contents of the plan are that Iran accepts IAEA safeguard and the UN and other states withdraw their sanction on Iran. However, the US withdrew from JCPOA in 2018.⁶ Since the JCPOA is not a treaty, withdrawal from it *per se* does not cause a legal problem. However, as the United Nations Security Council (UNSC) resolution calls upon all UN members to take appropriate actions to support the implementation of the JCPOA, the legal effect of the resolution should be analysed.⁷

Although the NWS were allowed to possess their nuclear weapons under the NPT regime, they are not also free from illegal acts regarding nuclear weapons under international law. According to Article VI of the NPT, the NWS “undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date”. Most scholars, including Joyner, interpret that the nuclear arms race ended along with the end of the Cold War.⁸ However, some scholars maintain that a new nuclear arms race started in 2002 as the US withdrew from the Anti-Ballistic Missile Treaty (ABM Treaty).⁹ As both the US and Russia announced its withdrawal from the Intermediate-Range Nuclear Forces (INF) Treaty in February 2019, new arms race argument became more persuasive.¹⁰ If the nuclear arms race

⁵ Polaris Sales Agreement (PSA). Washington DC 06.04.1963, e.i.f. 06.04.1963; Exchange of notes constituting an agreement concerning the acquisition by the United Kingdom of the Trident II Weapon System under the Polaris Sales Agreement signed on 6 April 1963. Washington, 19 October 1982, Washington DC 19.10.1982, e.i.f. 19.10.1982.

⁶ Joint Comprehensive Plan of Action. Vienna 14.07.2015 (created), e.i.f. 18.10.2015 (adoption). 16.01.01 (implementation); M. Landler. Trump Abandons Iran Nuclear Deal He Long Scorned. The New York Times, 08.05.2018. <https://www.nytimes.com/2018/05/08/world/middleeast/trump-iran-nuclear-deal.html> (24.02.2019).

⁷ United Nations Security Council Resolution 2231 (UNSC Resolution 2231), 20.07.2015. paragraph 7.

⁸ D. H. Joyner. The legal meaning and implications of Article VI of the Non-Proliferation Treaty. - G. Nystuen *et al.* Nuclear Weapons Under International Law. Cambridge: Cambridge University Press, 2014, p. 410.

⁹ N. Tannenwald. The Vanishing Nuclear Taboo? How Disarmament Fell Apart. – 97 Foreign Affairs 2018(6), p.20; Treaty between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems. Moscow 26.05.1972, e.i.f. 03.10.1972. (The US withdrawal 13.06.2002).

¹⁰ P. Stubbley. Putin threatens to build new missiles after Trump pulls US out of Cold War-era nuclear weapons treaty. The Independent, 02.02.2019 <https://www.independent.co.uk/news/world/europe/putin-russia-us-cold-war-trump-nuclear-weapons-missiles-treaty-arms-race-military-a8759616.html> (11.02.2019); Intermediate-Range Nuclear Forces Treaty (INF Treaty). Washington, D.C. 08.12.1987, e.i.f. 01.06.1988, expired 01.02.2019

has started again, this automatically constitutes the breach of Article VI of the NPT.

Other NWS – China, France and the UK – also are not free from illegal conduct. All NWS have begun modernising and upgrading existing warheads and nuclear weapons deliveries. Those actions should be critically analysed whether they have breached the preamble and Article VI of the NPT which state the cessation of the nuclear arms race at an early date. Even if the cessation of the nuclear arms race part has been satisfied by the NWS already, the nuclear disarmament part and the general and complete disarmament part of Article VI of the NPT should be analysed still.

Obstacles from the outside of the regime are following. The DPRK has a unique position compared to other non-NPT nuclear powers since it was a former NPT member.

“Article X of NPT stipulates that each Party shall have the right to withdraw from the Treaty if it decides that its supreme interests have been jeopardi[s]ed. This Article recognises that supreme interests of states are above the nuclear non-proliferation.”¹¹

The minister for foreign affairs of the DPRK, Ri Yong Ho, stated this during the General Debate of the 72nd session of the United Nations General Assembly (UNGA) in 2017 to justify the development of nuclear weapons of the DPRK in the legal perspective. This speech included a vindictive comment for the speech where the President of the US, Donald Trump, mentioned total destruction of North Korea during the same session of the UNGA.¹² War of words between two nuclear-armed states was enough to make the world tremble with fear of nuclear war.

Fortunately, the relation between the DPRK and the US is much better now compared to the time when these speeches were delivered as two leaders of the states had two summits already.¹³ However, the second summit was ended without any agreement, and the DPRK still possesses its nuclear weapons, and it shows how difficult it is to solve the nuclear crisis.

by the United States and expired 02.02.2019 by Russia.

¹¹ Statement by Y. H. Ri, Minister for Foreign Affairs of the Democratic People’s Republic of Korea. General Debate of the 72nd Session of the United Nations General Assembly. New York. 23.09.2017. https://gadebate.un.org/sites/default/files/gastatements/72/kp_en.pdf (01.02.2019).

¹² Statement by D. Trump, President of the United States of America. General Debate of the 72nd Session of the United Nations General Assembly. New York. 19.09.2017. https://gadebate.un.org/sites/default/files/gastatements/72/us_en.pdf (01.02.2019).

¹³ K. Liptak., J. Diamond. ‘Sometimes you have to walk’: Trump leaves Hanoi with no deal. CNN 28.02.2019. <https://edition.cnn.com/2019/02/27/politics/donald-trump-kim-jong-un-vietnam-summit/index.html> (06.03.2019).

The DPRK case should be divided into two parts. One part is the legality of development of nuclear weapons under the NPT before its withdrawal. The other part is the legality of the use of previous nuclear assistance from other NPT members for the development of nuclear weapons after the withdrawal from the NPT.

India, Israel and Pakistan have developed their nuclear weapons outside of the NPT regime. A treaty cannot make either obligations or rights for a third state without its consent unless it is customary law.¹⁴ Since those three states have never entered the NPT, they are not bound to the treaty. However, still, those states should develop their nuclear weapons in accordance with customary international law and treaties that they have entered. For example, all three states are members of the Partial Nuclear Test Ban Treaty.¹⁵

Four *de facto* nuclear powers have appeared, and this has endangered the world with nuclear crises. One of the reasons that India and Pakistan developed nuclear weapons was an unfavourable relationship between the two states. The military conflict is even continuing until today.¹⁶ The DPRK and the US exchanged furious condemnations to each other in 2017. Although the dialogue between the two states has commenced, it seems complicated to find an agreement as can be seen from the breakdown of the US and the DPRK summit in Hanoi in 2019. Israel still neither denies nor admits the possession of nuclear weapons.

This study is important for all states in the world since the horrible destructive power of nuclear weapons is unprecedented, and it can actually lead the end of the history of humankind. If the world is safe from the nuclear weapons regardless of the illegal or anomie status in the nuclear weapons world, analyses on illegal acts of states under the NPT regime or whatsoever has no substantive values besides academic value for international law scholars. Some scholars, including Waltz, explain that if the cost of war is much higher than the possible gain, the war becomes less likely.¹⁷ Therefore, the world will be safer if more states possess nuclear weapons as it will increase the cost of war between more countries. However, this idea is based on an ideal state that decision makers of each state always make reasonable decisions. Therefore, a new NPT regime which can actually achieve nuclear disarmament

¹⁴ Vienna Convention on the Law of Treaties (VCLT). Vienna 23.05.1969, e.i.f. 27.01.1980, Art 34 and Art 38.

¹⁵ Partial Nuclear Test Ban Treaty (PTBT). Moscow 05.08.1963, e.i.f. 10.10.1963.

¹⁶ H. Regan. *et al.* Pakistan says it shot down two Indian jets as Kashmir border crisis deepens. CNN, 28.02.2019. <https://edition.cnn.com/2019/02/27/india/india-pakistan-strikes-escalation-intl/index.html> (06.03.2019).

¹⁷ K. N. Waltz. The Spread of Nuclear Weapons: More May Better. – 21 *The Adelphi Papers* 1981(171). P. 4.

under the participation of all nuclear-armed states and lead them to the general and complete disarmament is needed at the end. Until now, there is no universal treaty which binds all nuclear-armed states under strict and effective international control. To reduce the risk of use of nuclear weapons, the current NPT regime should be critically analysed, and amendments should be suggested to make up the shortcomings of the current NPT regime.

The research questions are: have the NWS complied with the NPT and other international law regarding nuclear weapons matter? Have non-NPT nuclear powers complied with other international law regarding nuclear weapons matter? What kind of form and contents of a treaty can satisfy all nuclear-armed states, so all of them can join the treaty and achieve the world without fear of nuclear weapons?

The object of the thesis is the NPT and other relevant treaties. The NPT and other relevant treaties will be examined to define whether nuclear-armed states have violated international law. For the proposal of new contents for the new NPT regime, the strengths of each relevant treaty and the policies of each state will be introduced.

The primary source used in the thesis is the NPT. As secondary sources, relevant nuclear disarmament treaties, journal articles, books, and news articles were used. Especially for the status of the NWS' nuclear weapons deliveries, some of the reports from the Bulletin of the Atomic Scientists were mainly used. The analytical legal method was used in general for most of the parts of the thesis, but the model approach was used in the last chapter to propose some new contents for the new NPT regime.

The thesis is divided into four parts. In the first chapter, Article I and Article II of the NPT are examined. Article I of the NPT prohibits transference of nuclear weapons to any recipient and encouragement making the NNWS manufacturing nuclear weapons. Whether the missile sales between the US and the UK constitute the violation of the prohibition of transference of nuclear weapons is examined. Also, whether the reactions of the NWS of Indian and Pakistani nuclear weapon development constitute the violation of Article I of the NPT is examined. Article II prohibits the manufacturing of nuclear weapons. Iranian nuclear crisis and the DPRK nuclear weapons developments are examined whether the two states have breached Article II of the NPT. The US withdrawal from the JCPOA is also examined.

In the second chapter, Article VI of the NPT is examined. The author split Article VI into

three parts: cessation of the nuclear arms race, nuclear disarmament and the general and complete disarmament. The number of nuclear warheads, development of nuclear weapons deliveries, nuclear missiles defence system and nuclear weapon ban treaties are examined in the cessation of the nuclear arms race part to check whether the NWS have violated the law or not. Nuclear disarmament and treaty on general and complete disarmament are also examined for the same reason.

In the third chapter, other international laws regarding nuclear weapons are examined. The legality of the use of nuclear weapons under international law is analysed with the Legality of the Threat or Use of Nuclear Weapons 1996 Advisory Opinion (Nuclear Weapons Advisory Opinion) by the International Court of Justice (ICJ).¹⁸ To interpret the intention of judges more correctly, all separate opinions from judges on this advisory opinion were examined. The use of nuclear weapons under the international humanitarian law and international environmental law also are examined whether it is possible to use nuclear weapons in accordance with international law. The principle of military necessity, the principle of proportionality, the principle of humanity and the principle of distinction were analysed in the international humanitarian law part. Developments of nuclear weapons by non-NPT nuclear powers were examined. Since the DPRK has a unique status as it has tested nuclear weapons after its withdrawal from the NPT, different criteria have been applied.

In the last chapter, some new contents for the new NPT regime which will be concluded according to Article VI of the NPT were suggested. The theory that nuclear proliferation will increase the chance of peace will be critically examined first. After that, the specific details of the possible contents for the new NPT regime will be introduced. New NWS, linking the Comprehensive Nuclear-Test-Ban Treaty (CTBT), assurances of non-use and no first use, current nuclear-weapon-free zones, new withdrawal clause, the protection from nuclear terrorism by non-state actors and specific nuclear disarmament plan will be suggested.¹⁹

I would like to thank Liisa, my family and supervisor René Värk for all the support for me.

The following keywords characterise this thesis: disarmament, nuclear weapons, treaties on the nonproliferation of nuclear weapons.

¹⁸ Legality of the Threat or Use of Nuclear Weapons (Nuclear Weapons Advisory Opinion), Advisory Opinion, I. C. J. Reports 1996.

¹⁹ Comprehensive Nuclear-Test-Ban Treaty (CTBT). New York, 10.09.1996, not yet ratified.

1. NON-PROLIFERATION AND SAFEGUARDS UNDER ARTICLE I AND II OF THE NPT

The NPT contains three pillars: non-proliferation of nuclear weapons, peaceful use of nuclear energy and nuclear disarmament.²⁰ Articles I, II and III of the NPT are related to nuclear weapons non-proliferation and safeguards. Articles IV and V of the NPT are related to the peaceful uses of nuclear technology. Article VI of the NPT is the only article which refers to the nuclear disarmament. Compared to the other pillars, the peaceful uses of nuclear technology part has worked well so far. Article IV states that all state parties shall have the right “to develop research, production and use of nuclear energy for peaceful purposes”, and Article V ensures that all state parties shall have the right to benefit from any peaceful applications of nuclear explosions.²¹ However, the first pillar of the NPT has been a key issue in the nuclear community since some states are trying to violate the non-proliferation principle in various ways. In this chapter, the violation of the nuclear non-proliferation principle under the NPT by NWS and NNWS (including the former NNWS, the DPRK) will be analysed.

1.1. Interpretation of Article I of the NPT

Article I obliges each of the NWS parties:

not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly; and not in any way to assist, encourage, or induce any non-nuclear-weapon State to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices.

Although there are plenty of issues for discussion in this article, the definition of the most important terms, nuclear weapons and encourage will be focused.

²⁰ R. L. Pfaltzgraff, JR. The Future of the Nuclear Non-Proliferation Treaty. – 30, Fletcher Forum of World Affairs 2006(3), p.65.

²¹ G. Nystuen., T. G. Hugo. The Nuclear Non-Proliferation Treaty. - G. Nystuen *et al.* Nuclear Weapons Under International Law. Cambridge: Cambridge University Press, 2014, p. 391.

1.1.1. Missile sales between the US and the UK under Article I

There is no clear definition of nuclear weapons in the NPT. According to Willrich, the omission of the definition of nuclear weapons made it easier for the US to interpret nuclear weapons as only nuclear warheads, and not nuclear weapons deliveries.²² This ambiguousness made it possible for the US to sell missiles to the UK. The UK developed its nuclear warheads by its own, but essential part for the use of nuclear weapons, the missile, is prepared by the US. The lack of a definition also helped to obscure the fact that in the negotiations, the Union of Soviet Socialist Republics (USSR) more or less accepted the North Atlantic Treaty Organisation (NATO) sharing arrangements.²³ Since there was no clear opposition regarding these matters at the time when those agreements were made, delimiting the definition of nuclear weapons as only nuclear warheads is correct. Therefore, regarding Article I of the NPT, missile sales between two states is not against the law. However, regarding the Polaris Sales Agreement between the US and the UK, it seems like both states have violated the preamble and Article VI of the NPT.²⁴

1.1.2. Reactions of the NWS to Indian nuclear weapon development under Article I

India implemented its first nuclear bomb test in 1974. As it was revealed that the plutonium and heavy water used in the test were supplied by Canada and the US respectively, both countries stopped their nuclear energy assistance. After the first nuclear test of India, international society realised the necessity of a separate regime to check international nuclear proliferation, and therefore, the Nuclear Suppliers Group (NSG) was formed in 1975.²⁵ India implemented further nuclear tests in 1998 and announced its possession of nuclear weapons. The UNSC condemned India with a resolution.²⁶ The US imposed economic sanctions on India as well.²⁷ Although China, France, Russia and the UK did not impose any national level sanctions on India, they also had not accepted India as the NWS.²⁸ Along with Israel,

²² M. Willrich. The Treaty on Non-Proliferation of Nuclear Weapons: Nuclear Technology Confronts World Politics. – 77 Yale Law Journal 1968(8), p. 1474.

²³ G. Nystuen., T. G. Hugo. The Nuclear Non-Proliferation Treaty. *op. cit.*, p. 387.

²⁴ See *infra* Chapter 2.1.1.

²⁵ D. Kimball., The Nuclear Suppliers Group (NSG) at a Glance, Arms Control Association, 16.08.2017, <https://www.armscontrol.org/factsheets/NSG> (12.02.2019).

²⁶ United Nations Security Council Resolution 1172, 06.06.1998.

²⁷ U.S. imposes sanctions on india. CNN, 13.05.1998. <http://edition.cnn.com/WORLD/asiapcf/9805/13/india.us/> (13.02.2019).

²⁸ C. D. Wadhva. Cost of Economic Sanctions Aftermath of Pokhran II. – 33 Economic and Political Weekly

Pakistan and North Korea, India was not recognised as a nuclear power as they are not qualified to the definition of the NWS in Article IX paragraph 3 of the NPT since they have manufactured and exploded a nuclear weapon after 1st of January 1967.

However, the situation had been changed as the US lifted its sanctions on India in 2001.²⁹ Furthermore, the agreement (US-India Civil Nuclear Agreement) which gives India *de facto* nuclear power position was signed in 2007.³⁰ The key point of the agreement is that India would take IAEA safeguards of its civil nuclear facilities and the US agreed to have full civil nuclear cooperation with India. As military nuclear facilities are not under the control of IAEA safeguards, the agreement practically recognises India as nuclear power since the NPT regime stipulates that only the NWS are exempted from IAEA safeguards. The US persuaded NSG to grant the waiver to India from its existing rule, which forbids nuclear trade with a state which has not signed the NPT, and it was successful though there were some states which expressed their reservations.³¹

The action of the US regarding the acceptance of *de facto* nuclear power of India might constitute the breach of Article I of the NPT. The meaning of encourage should be determined first. According to the US Legal, the term, encourage, means: to give courage to, to raise confidence, or to make confident.³² Some irrelevant words from Article I of the NPT were removed so the relevant contents for analysis can be seen more clearly.

“Each nuclear-weapon State Party to the Treaty undertakes (...) not in any way to assist, encourage or induce any non-nuclear-weapon State to manufacture (...) nuclear weapons (...).”

What is the definition of the NNWS? Although there is a clear definition of the NWS in the NPT, there is no definition for the NNWS.³³ Considering the meaning of non- in English, the NNWS means all states except the NWS. Although a treaty does not create obligations for a

1998, p. 1604.

²⁹ U.S. lifts sanctions against India. CNN, 05.12.2001. <http://edition.cnn.com/2001/WORLD/asiapcf/south/12/04/india.us.defense/index.html> (13.02.2019).

³⁰ Agreement for Cooperation between the Government of the United States of America and the Government of India concerning peaceful uses of nuclear energy (US-India Civil Nuclear Agreement). 27.07.2007, not yet ratified.

³¹ S. Sirohi. A win-win situation for India. BBC, 09.10.2008. http://news.bbc.co.uk/2/hi/south_asia/7650286.stm (13.02.2019).

³² Encourage Law and Legal Definition, US Legal, <https://definitions.uslegal.com/e/encourage/> (12.02.2019).

³³ The NPT, *op. cit.*, article 9 paragraph 3.

third state without its consent according to the Vienna Convention on the Law of Treaties (VCLT), just being mentioned by the treaty without consent does not create any obligations for a third state.³⁴ Moreover, in Article I of the NPT, the NWS part is mentioned with the phrase, to the Treaty, whereas the NNWS is just mentioned without the phrase. Therefore, third states, including India, which have not signed the NPT should be defined in a certain group, the NNWS, in the treaty. It can be argued that as the first part of Article I of the NPT used the term, any recipient whatsoever, the NNWS should be distinguished from this term, so the NNWS only includes the NPT member states while the term, any recipient whatsoever, should mean any states, including the non-NPT states. However, the reason for not using the term, the NNWS, was to prohibit the transfer to military alliances or groups of states.³⁵ Preventing transfer to non-state whatsoever was the purpose of the term. Therefore, the term, the NNWS, in the second part of Article I of the NPT should be interpreted as it includes non-member states as well.

The question is whether the US committed the breach of Article I of the NPT by encouraging India or other NNWS to manufacture nuclear weapons or not. The US stopped its nuclear energy assistance to India right after the nuclear weapon test by India in 1974. Moreover, the US imposed economic sanctions on India as a reaction for the Indian nuclear weapon test in 1998. Considering those, the US did not encourage India to manufacture nuclear weapons. However, after three years from the announcement of possession of nuclear weapons by India, in 2001, the US acknowledged India as a *de facto* nuclear power outside the NPT regime by concluding the US-India Civil Nuclear Agreement. This action by the US in 2001 did not encourage India to manufacture nuclear weapons since India has manufactured nuclear weapons by its own will already before the recognition. There was no previous sign by the US that it would accept the Indian nuclear weapons development later, but the US only acted consistently trying to make India not to develop its nuclear weapons by various ways until it concluded the US-India Civil Nuclear Agreement with India in 2001. Therefore, the conclusion of the agreement in 2001 cannot be interpreted as a stimulant for the Indian nuclear weapons production in 1998.

³⁴ VCLT, *op. cit.*, Art 34.

³⁵ R. Popp. The long road to the NPT: from superpower collusion to global compromise. – R. Popp, L. Horowitz, A. Wenger (ed). *Negotiating the Nuclear Non-Proliferation Treaty*. London and New York: Routledge 2017, pp. 19-20.

However, the conclusion of the US-India Civil Nuclear Agreement can be applied to encouraging other NNWS to manufacture nuclear weapons. India became the first *de facto* nuclear power recognised by international society by joining the NSG without the entry of the NPT. The DPRK, which did not possess any nuclear weapons back in 2001, probably was carefully considering many other factors before it tested its first nuclear weapons in 2006. It is difficult to say that the conclusion of the US-India Civil Nuclear Agreement is the only factor of determination or continuation of the development of nuclear weapons by the DPRK. However, still, the agreement must be interpreted as a favourable factor for the government of the DPRK regarding developing nuclear weapons. Therefore, the US committed a breach of Article I of the NPT by concluding the US-India Civil Nuclear Agreement which strongly affected the determination of the DPRK manufacturing nuclear weapons.

Other NWS are also not exempted from this violation as they all accepted India entering the NSG with exceptional advantages. The UK, France and Russia supported the US-India Civil Nuclear Agreement. This can also be regarded as a violation of Article I of the NPT for the same reason that the US was charged. However, the heaviness of illegality should be examined differently as the US actively led the situation which ultimately gave India *de facto* nuclear power title. Unlike other NWS, China was not in favour of this case in the beginning.³⁶ Although China reluctantly had accepted the waiver which made India entry for the international nuclear market, China did not stop the deal. Therefore, China also should be blamed for the violation of Article I of the NPT for encouraging other NNWS manufacturing nuclear weapons though the heaviness of condemnation on China should be much less than other NWS.

1.1.3. Reactions of the NWS to Pakistani nuclear weapon development under Article I

Pakistani nuclear weapons development in 1998 also should be analysed with the US-India Civil Nuclear Agreement. As Pakistani nuclear test preceded the conclusion of the US-India Civil Nuclear Agreement, Pakistani nuclear weapon test clearly was not influenced by the conclusion of the US-India Civil Nuclear Agreement. It was more directly influenced by two nuclear weapon tests of India in 1974 and 1998. The first nuclear test of India made Pakistan

³⁶ I. Bagchi. India sees red as China voices n-deal concerns. The Times of India, 02.09.2008. <https://timesofindia.indiatimes.com/india/India-sees-red-as-China-voices-n-deal-concerns/articleshow/3433914.cms?referral=PM> (15.02.2019).

consider the necessity of development of nuclear weapons and the second nuclear test made Pakistan conduct nuclear weapons test immediately. However, the determination of the Pakistani government to keep the developed nuclear warhead must be influenced by the US-India Civil Nuclear Agreement. Like the DPRK case, it must be not the only factor that made Pakistan keeping its nuclear weapons, but it should be one of the reasons. However, considering the literal meaning of manufacturing nuclear weapons and keeping the manufactured nuclear weapons are different, this case cannot be applied to Article I of the NPT. Therefore, the US has not violated Article I of the NPT regarding Pakistani nuclear weapons development.

The position of China regarding the entry into NSG for Pakistan and India also addresses interesting points. China is against India's entry into the NSG since India is not a member state of the NPT although other NWS are positive about the case.³⁷ This Chinese view is correct since China, as an NWS member of the NPT, has an obligation not to encourage other NNWS manufacturing nuclear weapons. However, at the same time, China is arguing that the criteria-based approach should be applied for the entry of the NSG which means that either both India and Pakistan can get into the NSG or none of them can enter the NSG.³⁸ This view is not in accordance with the obligation as an NWS. To keep the nuclear non-proliferation principle, China should maintain that both India and Pakistan should enter the NPT to get into the NSG. Of course, the Chinese position is more logical than the US position which only agrees on Indian entry into NSG but does not allow Pakistan entry. The US explained this exceptional case like this; Nicolas Burns, the chief negotiator of the US-India Civil Nuclear Agreement, said "India's trust, its credibility, the fact that it has promised to create a state-of-the-art facility, monitored by the IAEA, to begin a new export control regime in place, because it has not proliferated the nuclear technology, we can't say that about Pakistan".³⁹ Trust and credibility cannot be used as legal grounds to discriminate Pakistan regarding this matter since it is more like political factors.

³⁷ China refuses to budge, says India must sign NPT to gain entry into NSG. The Indian Express, 31.01.2019. <https://indianexpress.com/article/world/india-must-sign-npt-to-gain-entry-into-nuclear-suppliers-group-china-refuses-to-dilute-stand-5563168/> (15.02.2019).

³⁸ *Ibid.*

³⁹ C. Paddock. India-US Nuclear Deal: Prospects & Implications. New Delhi: Epitome Books 2009. p. 6.

1.2. Interpretation of Article II of the NPT

In Article II, the NNWS parties undertake not to:

“(…) receive the transfer from any transferor whatsoever of nuclear weapons or other nuclear explosive devices or of control over such weapons or explosive devices directly, or indirectly; not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices; and not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices.”

The definition of manufacture is the key issue to interpret the meaning of Article II of the NPT. Since the law does not clearly state the meaning of manufacture, it is ambiguous whether planning, researching or other activities constitute the breach of Article II of the NPT or not. A treaty should be interpreted “in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose”.⁴⁰

Joyner pointed out that the physical construction of a nuclear explosive device means the original meaning of manufacture in Article II of the NPT.⁴¹ Even if the meaning is broadly expanded, at least, there should be the physical construction of the component parts of a nuclear explosive device.⁴² Research and development activities that could be eventually used for manufacturing nuclear weapons might be justified under the NPT according to the Joyner’s argument. According to this logic, the UNSC Resolutions which were imposed on Iran owing to its nuclear program were not in accordance with the international law since Iran has never manufactured nuclear explosive devices so far.⁴³ However, one of the UNSC resolutions which was imposed on DPRK before its first nuclear test can be regarded as the right one since the DPRK eventually developed nuclear weapons later.⁴⁴ Since the UNSC resolution 1695 did not mention Article II of the NPT as the ground for the condemnation, the

⁴⁰ VCLT, *op. cit.*, Art 31(1).

⁴¹ D. H. Joyner. Iran’s nuclear program and the legal mandate of the IAEA. *Jurist*, 09.11.2011. <https://www.jurist.org/commentary/2011/11/dan-joyner-iaea-report/> (28.01.2019).

⁴² *Ibid.*

⁴³ United Nations Security Council Resolution 1737, 23.12.2006. United Nations Security Council Resolution 1747, 24.03.2007. United Nations Security Council Resolution 1803, 03.03.2008. United Nations Security Council Resolution 1835, 27.09.2008. United Nations Security Council Resolution 1929, 09.06.2010. United Nations Security Council Resolution 1984, 09.06.2011. United Nations Security Council Resolution 2049, 07.06.2012. United Nations Security Council Resolution 2105, 05.06.2013. United Nations Security Council Resolution 2159, 09.06.2014.

⁴⁴ United Nations Security Council Resolution 1695, 15.07.2006.

resolution was not against international law.

However, Persbo opposes against Joyner's argument, claiming that any intended activities for the acquisition of nuclear weapons should be regarded breach of the preamble of the NPT since the proliferation of nuclear weapons will increase the chance of nuclear war.⁴⁵ According to the principles of treaty interpretation stated in the VCLT, the preamble of the treaty is one of the elements for the interpretation.⁴⁶ However, since Persbo's interpretation is beyond the original meanings of the term, manufacture, it is not correct. The fact that the proliferation of nuclear weapons might increase the chance of nuclear war cannot be the reason to expand the meaning of manufacture to research or development. Since India, Israel and Pakistan have never joined the NPT, they will not be examined in this chapter but in the later chapter.⁴⁷

1.2.1. Iranian Nuclear Weapons Development

Iran started its nuclear programme from the 1950s under the US support.⁴⁸ The Tehran Research Reactor, which was fuelled by highly enriched uranium, commenced its operation in 1967.⁴⁹ Iran ratified the NPT in 1970.⁵⁰ However, as the Iranian Revolution overthrew the US-friendly monarch of Iran in 1979, the situation has been changed. There were some suspicions that Iran might have an intention for developing nuclear weapons, but there was no clear evidence before Alireza Jafarzadeh, an Iranian dissident, publicly revealed the existence of two nuclear sites in 2002.⁵¹ One of the IAEA reports in 2003 states that "Iran has failed to meet its obligations under its Safeguards Agreement with respect to the reporting of nuclear material, the subsequent processing and use of that material and the declaration of facilities where the material was stored and processed".⁵² However, another IAEA report which was

⁴⁵ A. Persbo. A reflection on the current state of nuclear non-proliferation and safeguards. SIPRI. 2012, p. 4-5. <https://www.sipri.org/sites/default/files/Nonproliferation8.pdf> (19.03.2019).

⁴⁶ VCLT, *op. cit.*, Art 31(2).

⁴⁷ See *infra* Chapter 3.2.

⁴⁸ G. Bruno., Iran's Nuclear Program, Council on Foreign Relations, 10.03.2010 <https://www.cfr.org/background/irans-nuclear-program> (23.02.2019).

⁴⁹ A. Futter. The Politics of Nuclear Weapons (Korean Edition). London: SAGE Publications 2015, Myung In Publishers 2016 p. 198.

⁵⁰ Iran (Islamic Republic of): Ratification of Treaty on the Non-Proliferation of Nuclear Weapons (NPT), United Nations Office for Disarmament Affairs, <http://disarmament.un.org/treaties/a/npt/iran%28islamicrepublicof%29/rat/washington> (22.02.2019).

⁵¹ Futter, *op. cit.*, p. 198.

⁵² Implementation of the NPT safeguards agreement in the Islamic Republic of Iran, International Atomic Energy Agency, GOV/2003/32, 06.06.2003. p. 7.

reported in the same year stated that it is not certain whether undeclared nuclear material and activities which were stated from the previous report are the evidence of nuclear weapons programme.⁵³ Another IAEA report in 2005 also just stated that Iran failed to comply with Article XII.C of the IAEA's Statute.⁵⁴ However, there was no mention that the nuclear weapons programme was founded.

The IAEA report is the most non-biased and reliable resource to analyse the violation of the NPT provisions since other states' reports are comparably more influenced by each state's interests. According to the IAEA reports from 2003, Iran has never produced nuclear weapons. According to the abovementioned Joyner's interpretation, limiting the meaning of manufacture to the physical construction of a nuclear explosive device, Iran has not violated Article II of the NPT.⁵⁵ However, the violation of Article III of the NPT can be claimed since the IAEA report in 2005 stated that Iran breached many of its NPT safeguards agreement. Article III of the NPT obliges each NNWS to accept IAEA safeguards by concluding agreements with IAEA. As the IAEA report in 2005 stated, if Iran violates its obligations of the NPT Safeguards Agreement, it also constitutes the violation of Article III of the NPT.

1.2.2. The DPRK Nuclear Weapons Development

The DPRK joined the NPT in 1985. However, some evidence had been piled that the DPRK was developing nuclear weapons. The Joint Declaration of the Denuclearization of the Korean Peninsula (JDDKP) was declared in 1992 by the DPRK and the Republic of Korea (ROK) which states that "[t]he South and the North shall not test, manufacture, produce, receive, possess, store, deploy or use nuclear weapons".⁵⁶ However, this is not a treaty, so the JDDKP does not legally bind both parties. One of the reasons that both the DPRK and the ROK have never concluded any treaty is that both states do not recognise each other as a state. According to the Constitution of the ROK, one of the articles recognises the existence of the DPRK by stating "[t]he Republic of Korea shall seek unification" but another article of the Constitution denies the existence of the DPRK by stating "[t]he territory of the Republic of Korea shall

⁵³ Implementation of the NPT safeguards Agreement in the Islamic Republic of Iran, International Atomic Energy Agency, GOV/2003/75, 10.11.2003. p. 10.

⁵⁴ Statute of the IAEA. New York 23.10.1956, e.i.f. 29.07.1957; Implementation of the NPT safeguards Agreement in the Islamic Republic of Iran, International Atomic Energy Agency, GOV/2005/70, 24.09.2005. p. 2.

⁵⁵ See *supra* Chapter 1.2.

⁵⁶ Joint Declaration of the Denuclearization of the Korean Peninsula. 20.01.1992, e.i.f. 19.02.1992. para 1.

consist of the Korean peninsula and its adjacent islands” which means that the territory of the ROK includes the territory of the DPRK.⁵⁷

However, the IAEA reported to the UNSC that the DPRK did not report all of its nuclear facilities and some of those facilities might be related to the nuclear weapons programme.⁵⁸ The DPRK announced its withdrawal from the NPT in 1993, but as the US concluded an agreement which promised arrangements for two light water reactors and normalisation of diplomatic relations between two states, the DPRK suspended notification of withdrawal from the NPT in 1994.⁵⁹ This Agreed Framework between the two states is not a treaty as it had not taken any process for the legal effect. As the US Congress rejected US funding for light water reactors and it had not taken further steps for normalisation of relations with the DPRK, and the DPRK withdrew the NPT in 2003. The DPRK conducted its first nuclear test in 2006 and conducted further nuclear tests and produced nuclear warheads.

Although both the US and the DPRK had violated the Agreed Framework and the JDDKP, it is difficult to say that they violated international law since both agreements do not have legal binding force. However, the DPRK’s violation of safeguards agreement with the IAEA and the NPT should be analysed since those have legally binding force.⁶⁰ Firstly, it is difficult to say that the DPRK violated Article II of the NPT since it had not produced nuclear weapons at least before its withdrawal from the NPT. However, as IAEA reports pointed, the DPRK violated the safeguards agreement for sure.

Furthermore, as the DPRK had started to develop nuclear weapons before its withdrawal from the NPT by trading nuclear weapon technology and ballistic missile technology with Pakistan, the DPRK also had violated the preamble of the NPT.⁶¹ As Pakistan is not the NPT member state, analysis for Pakistan will be covered in the later chapter.⁶² As an NPT state, the DPRK should not have pursued the use of nuclear energy for the military purpose. However,

⁵⁷ 대한민국헌법 (Constitution of the Republic of Korea). Amended 29.10.1987, e.i.f. 25.02.1988. Art 4 and 5.

⁵⁸ Fact Sheet on DPRK Nuclear Safeguards, International Atomic Energy Agency, <https://www.iaea.org/newscenter/focus/dprk/fact-sheet-on-dprk-nuclear-safeguards> (27.02.2019).

⁵⁹ Agreed Framework of 21 October 1994 between the United States of America and the Democratic People’s Republic of Korea. Geneva 21.10.1994. para 1 and 11.

⁶⁰ Agreement of 30 January 1992 between the Government of the Democratic People’s Republic of Korea and the International Atomic Energy Agency for the Application of Safeguards in connection with the Treaty on the Non-Proliferation of Nuclear Weapons. Vienna 30.01.1992, e.i.f. 10.04.1992.

⁶¹ S. A. Squassoni. Weapons of Mass Destruction: Trade Between North Korea and Pakistan. CRS Report for Congress. 28.11.2006. <https://fas.org/sgp/crs/nuke/RL31900.pdf> (14.03.2019).

⁶² See infra Chapter 3.2.

the DPRK violated this obligation by giving ballistic missile technology to Pakistan and receiving nuclear weapon technology from Pakistan. As Article I of the NPT obliges only the NWS not to transfer to any recipient nuclear weapons, the provision should not be applied to the DPRK. However, still, as the preamble of the NPT states that “the proliferation of nuclear weapons would seriously enhance the danger of nuclear war”, the DPRK had an obligation not to transfer ballistic missile technology which will be used as a nuclear weapons delivery. The legality of the DPRK withdrawal of the NPT will be examined in the later chapter separately.⁶³

1.3. Other Violations of International Law regarding the Iranian Nuclear Crisis

The US has violated some international law regarding the Iranian nuclear weapons crisis. The JCPOA has been concluded in 2015, and it was regarded as the end of long-lasting Iranian Nuclear Crisis.⁶⁴ According to the JCPOA, Iran accepted that IAEA would have regular access to all Iranian nuclear facilities. Also, Iran promised to cut its stockpile of low-enriched uranium and the number of its gas centrifuges. However, in 2018, the US announced its withdrawal from the JCPOA as Iran did not meet the requirements of the treaty.⁶⁵ The US demanded three things: the restriction provisions on Iranian ICBM development, greater access to Iranian military sites and deletion of sunset provisions, which states the automatical expiration of restrictions on Iran’s nuclear program as time passed.⁶⁶ Although there were many strong condemnations from other relevant states, the US brought back all sanctions lifted just the same as before the conclusion of the JCPOA.⁶⁷

Firstly, no state neither signed nor ratified the JCPOA. The JCPOA does not contain provisions for ratification or entry into force, but only the date when sanctions should be lifted is referred as the implementation day.⁶⁸ Since the JCPOA has not gone through the necessary

⁶³ *Ibid.*

⁶⁴ Joint Comprehensive Plan of Action. Vienna 14.07.2015 (created), e.i.f. 18.10.2015 (adoption). 16.01.01 (implementation).

⁶⁵ M. Landler. Trump Abandons Iran Nuclear Deal He Long Scorned. The New York Times, 08.05.2018. <https://www.nytimes.com/2018/05/08/world/middleeast/trump-iran-nuclear-deal.html> (24.02.2019).

⁶⁶ J. Kruzell. What you need to know ahead of Donald Trump’s Iran deal deadline. POLITIFACT. 03.05.2018. <https://www.politifact.com/truth-o-meter/article/2018/may/03/what-you-need-know-ahead-donald-trumps-iran-deal-d/> (24.02.2019).

⁶⁷ D. Borak., N. Gaouette. US officially reimposes all sanctions lifted under 2015 Iran nuclear deal. CNN. 05.11.2018. <https://edition.cnn.com/2018/11/05/politics/iran-sanctions/index.html> (25.02.2019).

⁶⁸ S. P. Mulligan. Withdrawal from International Agreements: Legal Framework, the Paris Agreement, and the Iran Nuclear Agreement. Congressional Research Service. 04.05.2018. p.21.

process for the legal effect, the JCPOA is not considered as a treaty. The JCPOA is an unsigned document which relies on voluntary measures rather than binding obligations.⁶⁹ Therefore, international law would not prohibit the US President from withdrawing from the JCPOA and imposing sanctions on Iran.

However, as the JCPOA has been connected with the UNSC resolution 2231, whether the resolution imposes legal obligations on the US or not has become a complicated issue. The UN Charter states that the members of the UN accept and carry out the decisions of the UNSC.⁷⁰ It is clear that the UNSC intended to lift all previous sanctions from Iran, and this has binding effects as these paragraphs begin with the term, decide.⁷¹ However, whether the US should not impose sanctions on Iran to comply with the JCPOA is more complicated.

Calls upon all Members States (...) to take such actions as may be appropriate to support the implementation of the JCPOA, including by taking actions commensurate with the implementation plan set out in the JCPOA and this resolution and by refraining from actions that undermine implementation of commitments under the JCPOA[.]⁷²

The meaning of the term, calls upon, is not decisive yet. There are approximately equal numbers of commentators who indicate that it requires mandatory action and who indicate that it is merely recommendatory.⁷³ However, the author believes that the US has a clear obligation to comply with the JCPOA from this paragraph. Firstly, there was a case where the UK asserted that Iran had an obligation from the paragraph which starts with the term, calls upon. The UK maintained that Iran had an obligation to take the steps required by the IAEA before the 31st of August 2006 deadline established by paragraph 7 of Resolution 1696 as paragraph 1 of the same resolution calls upon it.⁷⁴ The UNSC resolution 1696 sanction was imposed on Iran and was lifted according to the UNSC resolution 2231. Therefore, to keep the consistency, the term, calls upon, in the UNSC resolution 2231 should be interpreted in a way that the US has an obligation to follow the JCPOA.

<https://fas.org/sgp/crs/row/R44761.pdf>. (26.02.2019).

⁶⁹ Mulligan. *op. cit.*, P. 21.

⁷⁰ Charter of the United Nations. San Francisco 06.26.1945, e.i.f. 24.10.1945, Art 25.

⁷¹ UNSC Resolution 2231, *op. cit.*, paragraph 7 and 8.

⁷² *Ibid*, paragraph 2.

⁷³ J. D. Fry. Dionysian Disarmament: Security Council WMD Coercive Disarmament Measures and Their Legal Implication. – 29 Michigan Journal of International law 2008(2) pp. 229–230.

⁷⁴ United Nations Security Council Resolution 1696, 31.07.2006. paragraph 1 and 7.

Furthermore, the paragraph indicates all Members States to take action. Even if the resolution simply recommends other states to take actions, at least the state parties to the JCPOA have more responsibility for the implementation plan. If the US made this agreement with other states and the UNSC recommends such actions according to the same agreement, and then the US does not follow the agreement, this cannot be logical.

Another issue regarding the new US sanctions on Iran is the ICJ order in 2018.⁷⁵ On October 3, 2018, the ICJ made an order that the US, in accordance with its obligations under the Treaty of Amity, Economic Relations, and Consular Rights between the United States of America and Iran (1955 Treaty), must lift its sanctions which were announced in May 2018 on Iran.⁷⁶ However, the US protested that the ICJ had no jurisdiction and announced the termination of the 1955 Treaty.⁷⁷ Firstly, although the US announced its withdrawal of the 1955 Treaty, in March 2019, the treaty is still valid and will be valid until October 2, 2019, one year later from the withdrawal announcement by the US according to the paragraph 3 of Article XXIII of the 1955 Treaty which stipulates one year's of period of term. Ironically, neither of the two states has ever terminated the 1955 Treaty but kept this during over four decades of hostile relations since the 1979 revolution in Iran. Both states brought their conflicts to the ICJ and claimed the breach of the 1955 Treaty to each other and received court decisions which cited the 1955 Treaty.⁷⁸ Therefore, the 1955 Treaty is still valid.

The US also questioned the jurisdiction of the ICJ. According to the ICJ Statute, the states parties may at any time declare the jurisdiction of the ICJ in all legal disputes concerning the interpretation of a treaty.⁷⁹ Accordingly, as a state party to ICJ Statute, Iran may bring the case of an alleged violation of the 1955 Treaty to ICJ any time. Although there is no method of enforcement, “the orders on the provisional measure under Article 41 [of the ICJ Statute] have binding effect” and thus create international legal obligations.⁸⁰ Therefore, the

⁷⁵ Alleged Violations of the 1955 Treaty of Amity, Economic Relations, and Consular Rights (Islamic Republic of Iran v. United States of America), Order, I.C.J. Reports 2018.

⁷⁶ *Ibid*, para 98; Treaty of Amity, Economic Relations, and Consular Rights. Signed at Tehran, on 15 August 1955. Tehran 15.08.1955, e.i.f. 16.06.1957.

⁷⁷ S. K. Dehghan., J. Borger. International court of justice orders US to lift new Iran sanctions. The Guardian, 03.10.2018. <https://www.theguardian.com/world/2018/oct/03/international-court-of-justice-orders-us-to-lift-new-iran-sanctions> (27.02.2019).

⁷⁸ United States Diplomatic and Consular Staff in Tehran Case (United States of America v. Iran), advisory opinions and order, I.C.J. Reports. 24.05.1980, para 90; Oil Platforms Case. (Islamic Republic of Iran v. United States of America), Judgment, I.C.J. Reports. 12.12.1996, para 55.

⁷⁹ Statute of the International Court of Justice. Art 36(2).

⁸⁰ Lagrand Case (Germany v. United States of America), Judgment, I.C.J. Reports. 27.06.2001, para 109.

arguments of the US regarding the jurisdiction of the ICJ and invalidity of the 1955 Treaty cannot be accepted, and the US should follow the order of the ICJ regarding the case of alleged violation of the 1955 Treaty by lifting the sanctions on Iran which were re-imposed after the withdrawal of JCPOA in 2018.

2. DISARMAMENT UNDER ARTICLE VI OF THE NPT

The UN General assembly Resolution laid out a series of principles, three-pillar framework: nuclear weapons non-proliferation, peaceful use of nuclear technology and nuclear disarmament.⁸¹ The first two principles of the NPT have been discussed already in the previous chapter. Unlike those two principles, nuclear disarmament principle does not have detailed and sophisticated contents. There is a separate organisation, IAEA, with safeguards system which requires several steps and procedures for the NNWS to assure the principle of non-proliferation. The second pillar also has not been arisen as a critical issue of the NPT so far. The last principle, nuclear disarmament which implies that the NWS would eventually eliminate their nuclear arms was the key inducement which made the NNWS accept the temporary unequal *status quo*.⁸² Disarmament was considered as giving, and the non-proliferation was considered as a return.⁸³ In this chapter, whether this principle has been appropriately worked during the last forty-nine years will be analysed.

Since Article VI of the NPT covers several elements, the author divided the article for efficient and accurate interpretation. Following is the division of Article VI:

“Each of the Parties to the Treaty undertakes to pursue negotiations in good faith (...)
(1) (...) on effective measures relating to cessation of the nuclear arms race at an early date;
(2) (...) on effective measures relating to nuclear disarmament;
(3) (...) on a treaty on general and complete disarmament under strict and effective international control.”

It seems like the cessation of the nuclear arms race part is the most urgent obligation compared to the other two parts since only the nuclear arms race part states the phrase, at an early date. Apart from this, the text alone does not indicate that there is a chronological order for these three obligations.⁸⁴ As it is mentioned in the previous chapter, according to the

⁸¹ United Nations General Assembly Resolution 2288. 19.11.1965.

⁸² S. Miller. Proliferation, disarmament and the future of the Non-Proliferation Treaty, - M. B. Maerli and S. Lodgaard. Nuclear proliferation and international security. Abingdon: Routledge Global Security Studies 2007, pp. 50-51.

⁸³ S. Lodgaard. Nuclear Disarmament and Non-Proliferation: towards a nuclear free world? Abingdon: Routledge Global Security Studies 2011, p. 85.

⁸⁴ Joyner 2014, *op. cit.*, p. 406.

principles of treaty interpretation stated in the VCLT, the preamble of the treaty is one of the elements for the interpretation.⁸⁵ A relevant paragraph to Article VI can be found from the preamble of the treaty as well. It says:

(...) Desiring (...) to facilitate the cessation of the manufacture of nuclear weapons, the liquidation of all their existing stockpiles, and the elimination from national arsenals of nuclear weapons and the means of their delivery pursuant to a Treaty on general and complete disarmament under strict and effective international control (...)

This paragraph clearly shows what the ultimate aim of the NPT is. To achieve its aim stated in the paragraph, Article VI of the treaty states “[e]ach of the Parties to the treaty undertakes to pursue negotiations in good faith”. The substance of the principle of good faith is the negation of unintended and literal interpretations of words that might result in one of the parties gaining an unfair or unjust advantage over another party.⁸⁶ Although Article VI of the treaty states each of the Parties to the Treaty, not the NWS, as responsible parties to Article VI, practically, the NWS are the only responsible parties since Article II of the treaty already strictly bans the NNWS from manufacturing or acquiring nuclear weapons. If the prerequisite to be an NNWS is non-possession of nuclear weapons, logically, nuclear disarmament is not needed. Therefore, only the NWS will be examined whether those states have violated Article VI or not. Common part for all three parts will be examined first.

“Each of the parties to the Treaty undertakes to pursue negotiations in good faith.”

Before analysing the meaning of good faith, the background of negotiations for the treaty should be examined first. Although the drafting history forms only a supplementary means of interpretation according to the VCLT, still, it is helpful to understand the positions of each of the Parties.⁸⁷ The NPT negotiations took place in the Eighteen-Nation Disarmament Committee (ENDC) on the basis of a mandate from the UN Disarmament Commission.⁸⁸ During the negotiations, the representatives of non-aligned nations argued strongly in the ENDC and various committees of the UN that for a proper balance of obligations, the nuclear powers should take some concrete steps for the nuclear disarmament according to the

⁸⁵ VCLT, *op. cit.*, Art 31(2).

⁸⁶ Joyner 2014, *op. cit.*, pp. 407-408.

⁸⁷ VCLT, *op. cit.*, Art 32.

⁸⁸ United Nations Disarmament Commission Resolution DC/225. 15.06.1965.

principles contained in UNGA Resolution 2028. However, the NWS strongly resisted the inclusion of a comprehensive test ban and an agreement to cease the production of ballistic missiles provisions in the treaty arguing that this would make the success of the NPT dependent on the negotiations of other treaties.⁸⁹ Eventually, the text was watered down, and the references to specific measures were removed. However, clearly, representatives of non-aligned nations back then thought of Article VI as obligations on the NWS for the exchange of obligations on the NNWS. Therefore, the fact that the NNWS thought Nuclear Disarmament as one of the exchanges for the Non-Proliferation should be considered in the analysis of the meaning of good faith.

The principle of good faith in negotiations was discussed in the decision of the Arbitration Tribunals in the 1957 Lake Lanoux arbitration. The Arbitration Tribunal stated that an obligation of negotiating an agreement could be breached:

“[I]n the event, for example, of an unjustified breaking off of the discussions, abnormal delay, disregard of the agreed procedures, systematic refusals to take into consideration adverse proposals or interests, and, more generally-, in cases of violation of the rules of good faith.”⁹⁰

Forty-nine years have passed since the effectuation of the NPT. According to the Arbitration Tribunal’s definition of abnormal delays, the NWS might have breached Article VI of the treaty. However, the author was not able to find any decision in international law cases mentioning how long periods could be regarded as abnormal delays. As auxiliary sources of international law, judicial decisions, including national decisions, can be used for analysis. Therefore, the author wants to share the Omission of Enactment case in the ROK. The Constitutional Court of Korea stated that Omission of Enactment for thirty-seven years could not be justified without legitimate reasons.⁹¹ The Constitutional Court of Korea saw thirty-seven years as abnormal delays. The Legislation of Act in national law can be compared with the Conclusion of the Treaty in international law. Therefore, forty-nine years of delay should be considered critically to examine the infringement of the provision. Without grave reasons

⁸⁹ E. L. M. Burns. *The Nonproliferation Treaty: Its Negotiations and Prospects* – 23 *International Organization* 2969(4), p. 802.

⁹⁰ *Lake Lanoux Arbitration (France v. Spain)*, Award of the Arbitration Tribunal, 16.11.1957, p. 23.

⁹¹ Constitutional Court of Korea, 26.02.2004, 2001HunMa718. According to the Act for the appointment of Military Judicial Officer back then, enforcement ordinance for the payment of the officers should be enacted. However, the enforcement ordinance was not enacted and thirty-seven years had passed.

for the delay, it cannot be justified, but the NWS committed a breach of the treaty.

The obligation to negotiate was discussed in the Advisory Opinion of Permanent Court of International Justice (PCIJ), *Railway Traffic between Lithuania and Poland* in 1931:

“The Court is indeed justified in considering that the engagement incumbent on the two Governments in conformity with the Council's Resolution is not only to enter into negotiation, but also to pursue them as far as possible, with a view to concluding agreements. (...) But an obligation to negotiate does not imply an obligation to reach an agreement (...).”⁹²

The PCIJ clearly stated that the obligation to negotiate does not include the obligation to reach an agreement. Therefore, with these ideas about the principle of good faith and obligation to reach an agreement, three parts of Article VI of the treaty will be examined in order.

2.1. Cessation of the Nuclear Arms Race

“Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date.”

According to the definition by Smith, the arms race is the participation of two or more states in apparently competitive or interactive increases in quantity or quality of war material.⁹³ Since there is no treaty which prohibits the general military researches and expansions, states have the right to develop and expand their arms. Therefore, increases in quantity or quality of military expansions and researches themselves should not be regarded as arms race automatically. However, it should be analysed whether it is apparently competitive or not. Based on this definition, most of the scholars concluded that the nuclear arms race ended with the break-up of the USSR.⁹⁴ As proof of the end of the nuclear arms race, the global nuclear stockpiles had been dramatically decreased after the Cold War as it can be seen from chart 1.⁹⁵

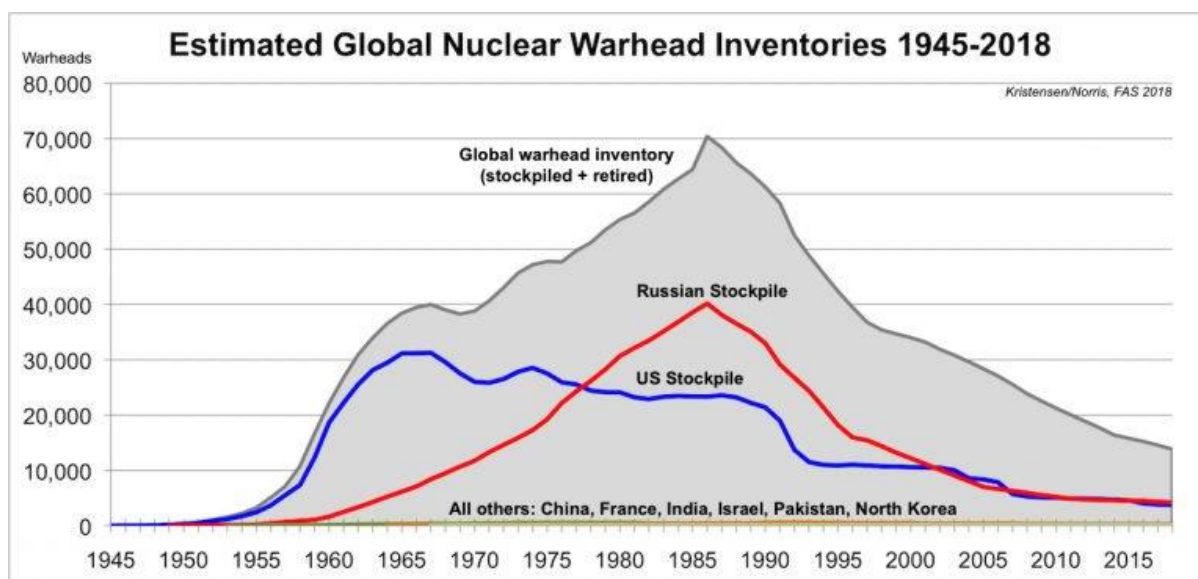
⁹² *Railway Traffic between Lithuania and Poland*, Advisory Opinion, Permanent Court of International Justice, 15.10.1931, para 31.

⁹³ T. C. Smith., *Arms Race Instability and War*. – 24 *The Journal of Conflict Resolution* 1980, p. 255.

⁹⁴ Joyner 2014, *op. cit.*, pp. 410-411.

⁹⁵ *Ibid.*

Chart 1 Estimated Global Nuclear Warhead Inventories 1945-2018⁹⁶



However, some scholars argue that the world is entering a new nuclear arms race. Tannenwald and Gorbachev said the US withdrawal of the Anti-Ballistic Missile Treaty (ABM Treaty) in 2002 was the start of a new arms race in the perspective of Russia.⁹⁷ Russian President Vladimir Putin shows the same perspective by saying that “[t]hose who have been creating new arms races over the last 15 years” is the reason for Russia’s development of new nuclear weapons.⁹⁸ Moreover, the US confirmed its withdrawal from the INF Treaty in February 2019. The US gave Russia 180 days to remove their violating missiles. However, Russia argues that their missiles are not against the INF Treaty.⁹⁹ If the INF Treaty has been terminated, the chance of new nuclear arms race will be increased. Zala stated that all the world’s nuclear-armed states, except for the DPRK, have begun modernising and upgrading their arsenals.¹⁰⁰ Those who argue about a new nuclear arms race commonly pointed out that the new arms race is focused on qualitative development rather than quantitative increase.

⁹⁶ H. M. Kristensen., R. S. Norris, Status of World Nuclear Forces, Federation of American Scientists, 2018, <https://fas.org/issues/nuclear-weapons/status-world-nuclear-forces/>, (06.12.2018).

⁹⁷ Tannenwald. *op. cit.*, p.20; M. Gorbachev. Opinion Mikhail Gorbachev: A New Nuclear Arms Race Has Begun. The New York Times, 25.10.2018. <https://www.nytimes.com/2018/10/25/opinion/mikhail-gorbachev-inf-treaty-trump-nuclear-arms.html> (24.01.2019).

⁹⁸ H. Ellyatt. Putin reveals new Russian missile that can ‘reach any point in the world’. CNBC. 01.03.2018. <https://www.cnbc.com/2018/03/01/putin-new-russia-missile-nuclear.html> (25.01.2019).

⁹⁹ J. Borger. Donald Trump confirms US withdrawal from INF nuclear treaty. The Guardian, 01.02.2019 <https://www.theguardian.com/world/2019/feb/01/inf-donald-trump-confirms-us-withdrawal-nuclear-treaty> (22.03.2019).

¹⁰⁰ B. Zala. How the next nuclear arms race will be different from the last one. – 75 Bulletin of the Atomic Scientists 2019(1), p.36.

The author thinks that nuclear arms race has never been stopped even after the cold war and a new nuclear arms race that other scholars have mentioned is just continuous action of the nuclear arms race which was started during the cold war. The nuclear arms race should be analysed differently from any other military arms race. A treaty should be interpreted “in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose.”¹⁰¹ Article VI is divided into three parts, and the first part mentions the cessation of the nuclear arms race and the second part states about the nuclear disarmament. Clearly, cessation of nuclear arms race should be achieved before nuclear disarmament considering the phrase, at an early date, is put to the arms race part. Nuclear disarmament is a bigger and more comprehensive concept than the cessation of the nuclear arms race. Cessation of arms race is the first step for disarmament since Article VI stipulates the nuclear disarmament later. Considering this, any further research and development for military nuclear materials should be regarded as an arms race and should be interpreted as a breach of pursuing negotiations in good faith. Upgrading nuclear weapons and pursuing negotiations in good faith for the cessation of the nuclear arms race cannot co-exist since two actions are opposite to one another.

Clearly, the quantity of nuclear warheads of the US and Russia has been decreasing since the middle of the 1980s. START I, Strategic Offensive Reductions Treaty, and New START dramatically have reduced the number of nuclear warheads, and it can be regarded as the compliance of Article VI of the NPT.¹⁰² France and the UK had reached their maximum nuclear stockpiles in 1991 (540 stockpiles) and 1973 (500 stockpiles) respectively but ever since then, stockpiles have been decreasing gradually (300 stockpiles and 215 stockpiles respectively in 2018). However, the last NWS, China has been increasing its nuclear stockpiles until now (280 stockpiles in 2018), though the amount of increase is not as dramatic as the US and the USSR during the Cold War period.¹⁰³ Expansion of nuclear stockpiles by China until now is a clear violation of Article VI of the NPT which requires all

¹⁰¹ VCLT, *op. cit.*, Art 31.

¹⁰² Treaty between the United States of America and the Union of Soviet Socialist Republics on the Reduction and Limitation of Strategic Offensive Arms. (START I) Moscow 31.07.1991, e.i.f. 05.12.1994. (Expired 05.12.2009.); Treaty between the United States of America and the Russian Federation on Strategic Offensive Reductions. Moscow 24.05.2002, e.i.f. 01.06.2003. (Expired 05.02.2011); Treaty between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (New START). Prague 08.04.2010, e.i.f. 02.05.2011.

¹⁰³ H. M. Kristensen., R. S. Norris. Global nuclear weapons inventories, 1945-2013. – 69 Bulletin of the Atomic Scientists 2013(5), p.78; H. M. Kristensen., R. S. Norris, PLOUGHSHARES FUND, 28.09.2018, <https://www.ploughshares.org/world-nuclear-stockpile-report> (08.12.2018).

treaty members to pursue negotiations in good faith to cease the nuclear arms race.

Increases in the quantity of war material are not the only criterion to judge whether it is arms race or not. Increases in the quality of nuclear weapons should be analysed as well. In 2013, at the Second session of the Preparatory Committee for the 2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, the Indonesian representative, speaking on behalf of the Non-Aligned Movement (NAM), elaborated clearly that the NAM regards further invest in modernising or upgrading nuclear weapons as a breach of Article VI:

“In order to comply with their obligations under Article VI of the Treaty, as well as with their commitments under the 13 practical steps and 2010 Action Plan on nuclear disarmament, the NWS must immediately cease their plans to further invest in modernizing, upgrading, refurbishing, or extending the lives of their nuclear weapons and related facilities.”¹⁰⁴

Although Yusup argued that refurbishing or extending the lives of nuclear weapons should be ceased immediately, they are not against the first part of Article VI, the nuclear arms race part. It just maintains the current nuclear arsenals to keep the current capacity of nuclear weapons. However, modernising or upgrading nuclear weapons, they can be regarded as a continuation of race arms. It depends on the actual meaning of modernising and upgrading. The US government has planned to spend up to \$1,082 trillion in total for the renovation of the nuclear arsenals for thirty years.¹⁰⁵ As a part of the renovation, nuclear warhead life extension programmes (LEP) have been started. These are projects to upgrade or replace critical elements of existing nuclear weapons to either improve safety or ensure the operation of these systems beyond their currently planned life expectancies.¹⁰⁶ As the CTBT bans all nuclear explosion, nuclear warhead LEP are not avoidable to maintain the current number of nuclear capacity. Therefore, the LEP should not be regarded as a part of the arms race automatically as long as this programme does not enhance the ability more than before.

¹⁰⁴ Statement by E. Yusup, Cluster 1 Specific Issues: Nuclear disarmament and security assurance, to the Second Session of the Preparatory Committee for 2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, 25.04.2013, para 6.

¹⁰⁵ J. B. Wolfsthal *et al.* The Trillion Dollar Nuclear Triad US Strategic Nuclear Modernization Over the Next Thirty Years. The James Martin Center for Nonproliferation Studies. 2014, p. 11.

¹⁰⁶ *Ibid*, p. 26.

2.1.1. Nuclear Weapons Deliveries

Nuclear weapons deliveries also should be examined to check whether the arms race had been ceased. Land-launched nuclear missiles, Submarine Launched Ballistic Missiles and nuclear bombs or missiles launched by bomber aircraft are nuclear weapons delivery. Since nuclear weapons cannot be used without delivery tools, development and upgrading of delivery technology are directed to the nuclear military upper hand. Therefore, developing new nuclear weapons deliveries might constitute the violation of Article VI of the treaty. Also, the Preamble of the NPT proclaims the elimination of means of nuclear weapons delivery. The Preamble also can be the legal ground of the prohibition of development of the means of nuclear weapons delivery. To examine whether states still have not finished the arms race or not, the thesis will analyse only the developments of technology which were conducted during the 21st century since the new century is clearly free from the Cold War period. Three kinds of means of nuclear weapons deliveries were examined: land-based intercontinental ballistic missiles (ICBM), submarine-launched ballistic missiles (SLBM) and air-based nuclear weapons (air-launched cruise missiles and gravity bombs). Unfortunately, it seems like all NWS are still developing and upgrading means of nuclear weapons delivery which might constitute a breach of international law.

Land-based intercontinental ballistic missiles (ICBM) of each NWS will be examined first. The US ICBMs completed a multibillion-dollar, decade-long modernisation programme in 2015 to extend the service life of the Minuteman III to 2030.¹⁰⁷ Although the US did not deploy a new ICBM, numbers of missiles have been refurbished. The refurbishing includes the flight controls, “the propellant in all three stages, the guidance system and the Propulsion System Rocket Engine” according to the Air Force personnel.¹⁰⁸ In 2017, the Air Force concluded contracts to develop the next-generation ICBM.¹⁰⁹ The new missile is expected to have a longer range than the previous one, making it possible to target from the continental US to China, Iran and the DPRK.¹¹⁰ The LEP for Minuteman III and the conclusion of contracts for new-generation ICBM constitute the violation of the preamble of the treaty since

¹⁰⁷ H. M. Kristensen., R. S. Norris. United States nuclear forces, 2018 – 74 Bulletin of the Atomic Scientists 2018(2), p.124.

¹⁰⁸ C. Pampe., 20th Air Force, United States Air Force, 26.10.2012, <https://www.20af.af.mil/News/Article-Display/Article/457746/life-extension-programs-send-missiles-into-the-future/> (24.01.2019).

¹⁰⁹ United States nuclear forces, 2018, *op. cit.*, p.125.

¹¹⁰ *Ibid.*

the improvement of nuclear abilities cannot be justified under the purpose of the treaty. Also, those actions constitute a breach of Article VI of the treaty because pursuing negotiations in good faith for the cessation of the nuclear arms race cannot co-exist with the development of nuclear arsenals.

In the Russian case, Russia is on the progress to replace all Soviet period missiles to the new ones by the early 2020s through a modernisation programme.¹¹¹ However, due to the lack of reliable sources, it is difficult to find out what is improved in newer types of missiles compared to the old Soviet versions, but the Kristensen and Norris surmised that new missiles had been upgraded remarkably.¹¹² Russia tested a new nuclear missile, RS-28, Sarmat missile in 2018 and the Russian military announced its success.¹¹³ New hypersonic ICBM seems to be able to carry more nuclear warheads with a longer range.¹¹⁴ If new Russian ICBM has been upgraded as it is estimated, it is a breach of the preamble and Article VI of the treaty by the same token with the US case.

The UK and France have not developed land-based ICBM. France decommissioned its Intermediate-range ballistic missiles in 1996. Chinese land-based ICBM modernisation is “part of a transition from older, transportable, liquid-fuel, slow-launching missiles to longer-range, road-mobile, solid-fuel, quicker-launching missiles”. The DF-31 has a range of more than 7,000 km, but cannot reach the continental United States. However, DF-31A, a new extended-range version of the DF-31 which was developed in 2007, is designed to reach targets in most of the continental United States. Therefore, China also have violated the preamble and Article VI of the treaty by developing ICBM technologies.¹¹⁵

Now, the submarine-launched ballistic missile (SLBM) of each NWS will be examined. The US is developing the Columbia-class submarine to replace the current Ohio-class nuclear powered ballistic missile submarines (SSBN) in the late 2020s.¹¹⁶ However, SLBM itself has not been developed further since 1987 in the US. The UGM-133A Trident II or the Trident D5

¹¹¹ H. M. Kristensen., R. S. Norris. Russian nuclear forces, 2018 – 74 Bulletin of the Atomic Scientists 2018(3), p.188.

¹¹² *Ibid.*

¹¹³ P. Reeve. Russia has tested new nuclear missile that NATO calls ‘Satan 2’. ABC NEWS. 30.03.2018. <https://abcnews.go.com/International/russia-tested-nuclear-missile/story?id=54123222> (25.01.2019).

¹¹⁴ *Ibid.*

¹¹⁵ H. M. Kristensen., R. S. Norris. Chinese nuclear forces, 2018 – 74 Bulletin of the Atomic Scientists 2018(4), p.290.

¹¹⁶ United States nuclear forces, 2018, *op. cit.*, pp.126-127.

is an SLBM which was first deployed in 1990 for the US Navy. In 2017, the US Navy started to deploy the upgraded Trident II D5LE as a part of LEP. D5LE will also arm the new US Columbia-class submarines when they enter service.¹¹⁷ This LEP is not a mere assurance of the reliability or safety but enhancement of nuclear military capabilities. The 100-kt Trident II warhead has three times bigger destructive power compared to the previous one.¹¹⁸ The US Navy violated the cessation of the nuclear arms race part of Article VI of the NPT by upgrading Trident II D5LE since it increases the killing power of the nuclear force tremendously and it cannot co-exist with Article VI.

In the Russian case, the Russian Navy operates three kinds of SSBN at the moment. The Borei class is the newest model among them, and the improved Borei-A SSBNs are under construction.¹¹⁹ Russia operates three kinds of SLBM, and two of them, RSM-54 and RSM-50 were newly developed during the 21st century whereas RSM-50 was deployed in 1978.¹²⁰ Due to the lack of available information about Russian SLBMs, it is difficult to analyse how much the Russian Navy improved its current SLBMs compare to previous old SLBMs. If the Russian Army has developed its SLBMs ability just like other NWS, it constitutes the breach of arms race part of Article VI of the NPT.

In the UK case, the Royal Navy is developing Dreadnought-class submarine to replace the current Vanguard class of SSBN.¹²¹ However, the UK has not developed SLBM independently. There was a treaty that the US agreed to provide the UK to purchase Polaris missiles in 1963.¹²² The NPT has entered into force in 1970, which was seven years later from the entering into force of the Polaris Sales Agreement (PSA). Therefore, the first launch of the Polaris missile of the British vessel in 1968¹²³ and other activities date before the NPT entering into force, 5th of March 1970, should not be regulated by the NPT provisions.

¹¹⁷ *Ibid*, p. 121.

¹¹⁸ H. M. Kristensen., M. McKinzie., T. A. Postol., How US nuclear force modernization is undermining strategic stability: The burst-height compensating super-fuze, Bulletin of the Atomic Scientists, 01.03.2017, <https://thebulletin.org/2017/03/how-us-nuclear-force-modernization-is-undermining-strategic-stability-the-burst-height-compensating-super-fuze/>, (14.12.2018).

¹¹⁹ Russian nuclear forces, 2018, *op. cit.*, pp.189-190.

¹²⁰ *Ibid*, p. 186.

¹²¹ Policy paper Dreadnought submarine programme: factsheet, Government of the United Kingdom, 19.02.2018, <https://www.gov.uk/government/publications/successor-submarine-programme-factsheet/successor-submarine-programme-factsheet> (12.12.2018).

¹²² PSA, *op. cit.*

¹²³ A. Priest. In American Hands: Britain, the United States and the Polaris Nuclear Project 1962–1968. – 19 Contemporary British History 2006(3), pp. 353-354.

However, activities of the US and the UK after the effectuation of the NPT should follow the purpose and provisions of the NPT. According to Article 30 paragraph 3 of VCLT, “when all parties to the earlier treaty are parties also to the later treaty (...), the earlier treaty applies only to the extent that its provisions are compatible with those of the latter treaty”. In this case, the US and the UK are all parties to the earlier treaty, the PSA, and at the same time, parties to the latter treaty, the NPT. So, Article 30(3) of VCLT should be applied. Most of the provisions of PSA are against the purpose of the NPT, especially Article VI of the NPT since the PSA covers the exchange of nuclear weapons deliveries technology to enhance the ability of nuclear weapons. Clearly, missiles are not nuclear weapons, and Article I of the NPT only prohibits the transfer of nuclear weapons or other nuclear explosive devices.¹²⁴ Therefore, Both states have not violated Article I of the NPT.¹²⁵

However, as Article VI gives each of the Parties to the Treaty an obligation to enter negotiations for nuclear disarmament, the NWS have a responsibility to pursue negotiations to each other. Nevertheless, the US and the UK had a negotiation which is actually against their responsibility deriving from the NPT and even reached an agreement to enhance their nuclear capabilities jointly. Each action by states is not a separate independent action. They all should be analysed and judged with other state actions. The exchange of nuclear missiles to enhance the nuclear capabilities by the government cannot co-exist with pursuing negotiations in good faith for the cessation of the nuclear arms race.

Moreover, the US and the UK amended the PSA in 1982 to make the UK be able to buy Trident II missiles.¹²⁶ As the UK decommissioned its tactical WE177 bombs which were equipped by the Royal Navy and the Royal Air Force for the UK in 1998, the Trident II has been the only operational nuclear weapons system in the UK service.¹²⁷ This case is even more serious breach of international law since the amendment had been concluded after the NPT entered into the force. The amendment of the agreement in 1982 after the NPT agreement cannot be justified and thus constitutes the breach of international law. The UK is still continuously violating the law by using the Trident II and the making a decision to

¹²⁴ The NPT, *op. cit.*, Article 1.

¹²⁵ See *supra* Chapter 1.1.1.

¹²⁶ Exchange of notes constituting an agreement concerning the acquisition by the United Kingdom of the Trident II Weapon System under the Polaris Sales Agreement signed on 6 April 1963, *op. cit.*

¹²⁷ H. M. Kristensen., R. S. Norris. The British nuclear stockpile, 1953-2013 – 69 Bulletin of the Atomic Scientists 2013(4), p.70.

participate in the US life extension programme for the Trident D5 missile.¹²⁸ As it was mentioned above in the US SLBM part, the primary purpose of LEP for Trident D5 is to increase nuclear abilities. The purchase of Trident missile from the US by the UK also has the same purpose of increasing the nuclear abilities of the UK. Moreover, the UK should be criticised more for the violation of Article VI of the NPT since it had pursued negotiations for the enhancement of nuclear abilities, and actually had concluded the agreements instead of pursuing the negotiations for the cessation of the nuclear arms race. The US also is not innocent in this case since it also had pursued negotiations which resulted in the development of nuclear abilities of other state and actually had concluded the agreements.

In conclusion, the conclusion of the PSA in 1963 and actions of nuclear weapons development or exchange of related technologies which had conducted date before the NPT entering into force are not against international law. However, state actions which have been implemented date after the NPT entering into force should follow the purpose of the NPT, but the UK has violated the Article VI and preamble of the NPT by concluding the amendment of the agreement in 1982 which made the UK be able to purchase Trident II missiles. Moreover, the decision to participate in the US life extension programme for the Trident D5 missile by the UK government also will constitute the breach of Article VI and preamble of the NPT if it actually happens in the near future.

The French Navy operates Triomphant-class SSBNs since 1997.¹²⁹ Given that the Triomphant-class SSBNs are expected to reach the end of their operational lives in the 2030s, development on a new generation of SSBN is expected to begin soon.¹³⁰ The new submarine class, which is known as SNLE-3G, incorporates a longer hull and advanced stealth features.¹³¹ All French SSBNs carry the M51 SLBM, which was deployed starting in 2010 to replace the M45 SLBM.¹³² The M51.1 has a longer operational range and better accuracy than the M45, and the M51.2, an upgraded version of the M51.1 carries a new warhead, the

¹²⁸ The Future of the United Kingdom's Deterrent. United Kingdom Ministry of Defence. 04.12.2006.

¹²⁹ H. M. Kristensen, M. Korda. French nuclear forces, 2019 – 75 Bulletin of the Atomic Scientists 2019(1), p.51.

¹³⁰ *Ibid*, p. 52.

¹³¹ X. Vasseur., Here is the First Image of the French Navy Next Generation SSBN – SNLE 3G. Navy Recognition, 03.10.2018. Accessible: <http://www.navyrecognition.com/index.php/news/defence-news/2018/october-2018-navy-naval-defense-news/6538-here-is-the-first-image-of-the-french-navy-next-generation-ssbn-snle-3g.html> (10.01.2019).

¹³² P. Tran. France makes progress on refitting submarine for M51 missiles. Defense News, 23.07.2018. Accessible: <https://www.defensenews.com/naval/2018/07/23/france-makes-progress-on-refitting-submarine-for-m51-missiles/> (10.01.2019).

tête nucléaire océanique (TNO), while M51.1 carries TN75, the warhead of the previous version. The TNO is stealthier than the TN75, has an increased yield of 150 kilotons, and is housed within a new re-entry vehicle, with the entire package weighing approximately 500 kilograms. This new M51.2 will be carried by all French Navy SSBNs by 2020. A new upgraded version, M51.3 which has extended range and further improvement in accuracy is in development.¹³³ Developing of the M51 SLBM and upgrading of M51.1 and M51.2 constitute a violation of Article VI and the preamble of the NPT which states pursuing negotiations in good faith to stop the nuclear arms race. Also, if the French government develops a new generation of SSBN or upgrades M51.2 to M51.3 as it planned, those actions also should be regarded as a violation of the same law as those developments and upgrades lead the remarkable improvement of French nuclear capability. Ironically, since France is the most transparent one in its information about nuclear capacity among the nuclear-armed states, it is easier to analyse its breach of international law.¹³⁴

China is operating a fleet of four Jin-class SSBNs.¹³⁵ First Jin-class SSBN was operational in 2007. Owing to the lack of official data about SSBN of the Chinese People's Liberation Army Navy (PLA Navy), it is difficult to compare the specifications of Jin-class SSBN and Xia-class SSBN, a former SSBN model of PLA Navy. However, compared to the other states' SSBN models, PLA Navy SSBN model performs poorly along with a noise problem.¹³⁶ The current Chinese SLBM, JL-2 is a second generation model which has been deployed since 2015. JL-2 has a more extended range of more than 7,000 km than previous SLBM model, JL-1. The PLA Navy also conducted the first JL-3 SLBM test in the Bohai sea in November 2018.¹³⁷ JL-3 is presumed to have more than 9,000 km of range.¹³⁸ Due to the lack of official data about SSBN, it is difficult to know whether China qualitatively upgraded its SSBN in the 21st century. However, if China also has upgraded its new Jin-class SSBN compared to the previous Xia-class SSBN, it constitutes the breach of Article VI and the preamble of the NPT. Moreover, considering the fact that JL-2 is functionally much more developed than JL-1, this

¹³³ French nuclear forces, *op. cit.*, p.52.

¹³⁴ *Ibid*, p. 51.

¹³⁵ Chinese nuclear forces, 2018. *op. cit.*, p.292.

¹³⁶ H. M. Kristensen. China's Noisy Nuclear Submarines, Federation of American Scientists, 21.11.2009, <https://fas.org/blogs/security/2009/11/subnoise/>, (16.01.2019).

¹³⁷ A. Panda. China Conducts First Test of New JL-3 Submarine-Launched Ballistic Missile. The Diplomat, 20.12.2018. <https://thediplomat.com/2018/12/china-conducts-first-test-of-new-jl-3-submarine-launched-ballistic-missile/> (16.01.2019).

¹³⁸ *Ibid*.

also constitutes the violation of the same law and current development of JL-3 with even longer range than JL-2 also should be regarded in the same way.

Air-based nuclear weapons will be examined from this part. The US has deployed nuclear gravity bombs on B-2, and nuclear air-launched cruise missiles (ALCM) on B-52. B61-7, B61-11, and B83-1 are used as gravity bombs, and AGM-86B is used as nuclear ALCM. The US is modernising its nuclear bomber force by upgrading nuclear gravity bombs. The first guided, standoff nuclear gravity bomb will replace all current gravity bombs in the mid-2020s. AGM-86B also will be replaced by new long-range standoff missile in 2030. The new missile will have longer range, greater accuracy, and enhanced stealth. These technological advancements of nuclear gravity bombs and nuclear ALCMs are against Article VI and the preamble of the NPT.¹³⁹

Russia operates Tu-160 and Tu-95MS. Both can carry the nuclear AS-15 Kent ALCM and gravity bombs. The upgrading for some of both aircraft had been done by 2016 already, and the rest of the aircraft also will be modernised by 2019. Russia is also planning a new version of the Tu-160, known as Tu-160M2, which is scheduled to begin production around 2024. These developments are also cases of breach of Article VI and preamble of the NPT.¹⁴⁰

The UK has not possessed any air-based nuclear weapons so far. France has both Naval and Air Forces for nuclear missions. The strategic air forces operate Rafale BF3 aircraft, and the Naval Nuclear Aviation Force operates Rafale MF3 aircraft which is operated with France's sole aircraft carrier, the Charles de Gaulle. The French minister of the Armed Forces announced that in 2020, France would make a decision on replacing Charles de Gaulle. Also, France has begun design development of a stealthier, extended-range replacement for the current missile, ASMPA, which will be called the ASN4G and enter into service around 2035. As France has not started its production yet, it might be early to analyse that it breaches Article VI and preamble of the NPT, but if France implements its plan as it is scheduled, a clear violation of the law will happen soon.¹⁴¹

Although Chinese H-6 bombers are able to carry out nuclear missions, it is believed that the PLA Air Force does not currently have a nuclear mission according to the 2017 report by the

¹³⁹ United States nuclear forces, 2018, *op. cit.*, p. 127.

¹⁴⁰ Russian nuclear forces, 2018, *op. cit.*, p.190.

¹⁴¹ French nuclear forces, *op. cit.*, p.52-53.

US defence department. However, Chinese officials announced its development of a new long-range bomber in 2016 and the US officials expect this will have a nuclear mission. The new bomber might become operational by the mid- or late-2020s. If China is developing a bomber for nuclear mission purpose, China is against Article VI and preamble of the NPT.¹⁴²

The conclusion of analyses of nuclear weapons deliveries is that all NWS are modernising and upgrading their nuclear weapons deliveries and it is against the first part of Article VI of the NPT which states the cessation of the nuclear arms race at an early date.

2.1.2. Nuclear Missiles Defence System

Mutually assured destruction is the main theory which has a strong influence in the nuclear weapons world. This theory claims that conflicts between states can be prevented by mutual vulnerability on the nuclear attack. According to the theory, if one of the NWS, A, is able to survive after the first nuclear attack from another NWS, B, and A can retaliate against B with nuclear weapons, B will never use nuclear weapons. A also will not use nuclear weapons if the same situation is expected. For this, both states should know that each other's nuclear attack can leave unavoidable harm to each other. For this, vulnerability on the nuclear attack is necessary.

The ABM Treaty was concluded based on this theory in 1972 by the US and the USSR. However, the US withdrew from the treaty according to the Article XV of the ABM Treaty in 2002. The US explained that as both the US and Russia face new threats of mass destruction by terrorists and rogue states, the missile defence system is needed.¹⁴³ As a response, in 2002, Russia withdrew from Strategic Arms Reduction Treaty II (START II) which limited the multiple independently targetable re-entry vehicles (MIRV) on ICBMs.¹⁴⁴ During a speech to the Russian Federal Assembly, President Vladimir Putin maintained that Russia started to develop its new nuclear weapons since the US withdrawal from the ABM Treaty.¹⁴⁵

¹⁴² Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2017. Office of the Secretary of Defense, 15.05.2017. p. 61. https://dod.defense.gov/Portals/1/Documents/pubs/2017_China_Military_Power_Report.PDF (28.02.2019).

¹⁴³ ABM Treaty Fact Sheet, The White House President George W. Bush, 13.12.2001, <https://georgewbush-whitehouse.archives.gov/news/releases/2001/12/20011213-2.html> (01.03.2019).

¹⁴⁴ Treaty between the United States of America and the Russian Federation on Further Reduction and Limitation of Strategic Offensive Arms. Moscow 03.01.1993, e.i.f. 14.04.2000. (Russia withdrawal 14.06.2002.).

¹⁴⁵ D. Majumdar., Russia's Nuclear Weapons Buildup Is Aimed at Beating U.S. Missile Defenses. The National Interest, 01.03.2018. <https://nationalinterest.org/blog/the-buzz/russias-nuclear-weapons-buildup-aimed-beating->

Firstly, both the US and Russia withdrew the treaty in accordance with the provisions of each treaty. However, the withdrawal of the ABM Treaty by the US is often regarded as the start of a new nuclear arms race as it spurred other NWS to develop the nuclear capabilities in various ways. In this perspective, the withdrawal of the ABM Treaty should be regarded as a clear breach of the first part of Article VI of the NPT which mentions the cessation of the nuclear arms race. Because, even if the nuclear arms race had ended right after the end of the cold war, if the NWS have entered another new nuclear arms race, this situation cannot be interpreted as an observance of the Article VI and preamble of the NPT. Although the US had fired this new nuclear arms race, Russia's reaction cannot be justified since it is still a member state of the NPT. Russia should not have withdrawn from START II but should have entered negotiations and talk to deal with a problem. However, Russia eventually justifies its development of new nuclear weapons with an excuse of ABM Treaty withdrawal which had happened seventeen years ago. Russia's action also should be criticised for the violation of Article VI and preamble of the NPT.

2.1.3. Nuclear Weapon Ban Treaties

Nuclear weapon ban treaties should be examined to check the observance of Article VI of the NPT by nuclear powers. There are two kinds of nuclear weapon ban treaties: ban on the use of nuclear weapons in certain areas and ban on nuclear weapons by prohibiting means of a nuclear test.

The ban on the use of nuclear weapons in certain areas will be examined first. Although the primary purpose of the Antarctic treaty is a prohibition of any military activity in the Antarctic, as the treaty clearly prohibits any nuclear explosions in the Antarctic and the disposal thereof radioactive waste material, the treaty can be regarded as a first nuclear test ban treaty.¹⁴⁶ All NWS and non-NPT nuclear powers except Israel have ratified this treaty. The main purpose of the Outer Space Treaty is to ban placing nuclear weapons or weapons of mass destruction (WMD) in the outer space and limits the use of celestial bodies to peaceful purposes.¹⁴⁷ All NWS and non-NPT nuclear powers have ratified this treaty. The main purpose of the seabed arms control treaty is banning the emplacement of nuclear weapons or WMD on the ocean

us-missile-24716 (01.03.2019).

¹⁴⁶ Antarctic Treaty. Washington, D. C. 01.12.1959, e.i.f. 23.06.1961, Art 5.

¹⁴⁷ Treaty on principles governing the activities of states in exploration and use of outer space, including the moon and other celestial bodies. Moscow, London and Washington, D. C. 27.01.1967, Art 4.

floor.¹⁴⁸ France, the DPRK, Israel and Pakistan have not ratified the treaty.

Whether non-NPT nuclear powers have the obligations for the cessation of the nuclear arms race and nuclear disarmament will be analysed in the next chapter.¹⁴⁹ However, even if non-NPT nuclear powers have obligations for the nuclear disarmament, still, it is difficult to say that Israel should join the Antarctic treaty since the main purpose of the treaty is not on the restriction of a nuclear weapon. However, for the seabed arms control treaty, since the main purpose of the treaty is related to the nuclear arms race and nuclear disarmament, France, as an NWS, should join the treaty. As France has not joined to the seabed arms control treaty until now, it constitutes the breach of Article VI of the NPT.

The ban on nuclear weapons by prohibiting means of the nuclear test will be examined. Partial Nuclear Test Ban Treaty (PTBT) is the first nuclear test ban treaty.¹⁵⁰ The interesting point is that the PTBT bestows special status, Original Parties, to only three states out of five NWS, the US, the USSR and the UK. According to Article II of PTBT, the amendment requires the majority of the votes of member parties and the votes of all of the Original Parties. The reason for the exclusion of France and China from special status is that China had not developed its nuclear weapons yet in 1963 when the treaty was signed, and France also had not developed its nuclear weapons yet during the negotiation period for the PTBT in the 1950s. As a result, China and France conducted 22 and 50 atmospheric tests respectively in the 1960s and 1970s. The last atmospheric test of France was in 1974, and China's was in 1980. China and France still have not joined the PTBT.

Although the following CTBT superseded the PTBT, both China and France should join the PTBT to comply with Article VI of the NPT since the CTBT have not entered into force yet. China and France already have the obligation not to defeat the object and purpose of CTBT as China signed the CTBT and France ratified the CTBT.¹⁵¹ However, to strengthen their obligations not to conduct nuclear tests in accordance of the obligations under Article VI of the NPT, they should join the PTBT especially as the circumstance that CTBT will enter into

¹⁴⁸ Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the seabed the Ocean Floor and in the subsoil Thereof. Washington, D. C., London and Moscow 11.02.1971, e.i.f. 18.05.1972, Art 1.

¹⁴⁹ See *infra* Chapter 3.2.

¹⁵⁰ Treaty banning nuclear weapon tests in the atmosphere, in outer space and under water. Moscow 05.08.1963, e.i.f. 10.10.1963.

¹⁵¹ VCLT, *op. cit.*, Art 18.

force is less likely to happen any time soon.

The CTBT prohibits any nuclear explosion at any place.¹⁵² The CTBT requires ratification by 44 states which possessed nuclear power reactors or research reactors during the CTBT's negotiation period.¹⁵³ However, two NWS, China, and the US have signed but not ratified the CTBT yet. Israel is the only non-NPT nuclear power which has signed the CTBT but others, the DPRK, India, and Pakistan are non-signatory states. China and the US should ratify the CTBT as soon as possible to comply with Article VI of the NPT.

To sum up the chapter 2.1., China has increased its nuclear stockpiles until 2018. All NWS are developing, modernising and upgrading their nuclear weapons deliveries in various ways until now. The US withdrew from the ABM Treaty. Russia withdrew from START II and is developing new nuclear weapons as a response. France has not joined to the seabed arms control treaty. China and France have not signed the PTBT, and China and the US have not ratified the CTBT yet. Those are the clear evidence that the nuclear arms race exists and it is the violation of the first part of Article VI of the NPT which urged the NWS to cease the nuclear arms race at an early date.

Although the PCIJ stated that the obligation to negotiate does not include the obligation to reach an agreement, considering the fact that the first part of Article VI of the NPT explicitly says the phrase, at an early date, too long time has been passed.¹⁵⁴ The NPT entered into force in 1970, and forty-nine years has been passed. Forty-nine years is an abnormal delay which was explained in the Lake Lanoux Arbitration. Even if the nuclear war had been ended right after the end of the Cold War, if the new arms race has been started later, it constitutes the violation of Article VI of the NPT automatically.

2.2. Nuclear Disarmament and Treaty on General and Complete Disarmament

“Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to (...) nuclear disarmament.”

Most of the scholars do not see the current situation as a continuation of the arms race.¹⁵⁵

¹⁵² CTBT. *op. cit.*, Art I.

¹⁵³ *Ibid*, Art XIV and Annex 2.

¹⁵⁴ Railway Traffic Case, *op. cit.*, para 31.

¹⁵⁵ Joyner 2014, *op. cit.*, p. 410.

However, most of the scholars are not satisfied with the achievements regarding the nuclear disarmament so far, and it concludes that the NWS has not complied with Article VI of the NPT. Joyner argues that nuclear disarmament is distinguished from general and complete disarmament. The nuclear disarmament clause does not mention specific means for nuclear disarmament. Even the treaty is not mentioned as a means to achieve nuclear disarmament. This means that other means can be done to achieve the purpose. Article VI grants relatively broader flexibility to determine how to meet this obligation including through unilateral disarmament. The purpose of the NPT is nuclear disarmament, but not negotiation itself.¹⁵⁶ Therefore, the NWS should implement nuclear disarmament by themselves even if other NWS do not pursue negotiations in good faith. Nonfulfillment of other NWS obligations cannot be an excuse for not implementing nuclear disarmament since other most of the NNWS are following the NPT. Even if the nuclear arms race had been ended already and the new nuclear arms race has never begun, the analyses from chapter 2.1 can be used as evidence of a violation of nuclear disarmament part of Article VI of the NPT.

“Each of the Parties to the Treaty undertakes to pursue negotiations in good faith (...) on a treaty on general and complete disarmament under strict and effective international control.”

A treaty is needed for general and complete disarmament. The difference between the Nuclear disarmament and general and complete disarmament is the level of disarmament. The latter has the meaning of total elimination of nuclear weapons while the former means a lower level of nuclear disarmament. Therefore, it can be achieved after the settlement of the first and the second part of Article VI of the NPT and member states could have expected the conclusion of general and complete disarmament will take quite a lot of time, even longer than fifty years. Therefore, although the NWS have not even reached this level to deal with this part, since the general and complete disarmament is expected to take much time, the NWS have not violated the last part of Article VI of the NPT.

¹⁵⁶ *Ibid*, pp. 411-414.

3. OTHER INTERNATIONAL LAW REGARDING NUCLEAR WEAPONS

For the suggestion of the new contents of the new NPT regime, other international law regarding nuclear weapons should be examined. The illegality of the use of nuclear weapons and the impossibility of co-existence of use of nuclear weapons and conformity of international law will be examined. New contents for the new NPT regime will be suggested based on the analyses presented in this chapter. Also, as non-NPT nuclear powers have developed nuclear weapons outside of the NPT regime, the legality of nuclear weapons of non-NPT nuclear powers also will be examined under the other international law regarding nuclear weapons.

3.1. Legality of Use of Nuclear Weapons under International Law

The main source to analyse the legality of the use of nuclear weapons is the Nuclear Weapons Advisory Opinion as it is the only international court's opinion on nuclear weapons. The use of nuclear weapons under the international humanitarian law and international environmental law will be examined to check whether it is possible to use nuclear weapons in accordance with those laws.

3.1.1. ICJ Advisory Opinion

Although ICJ advisory opinion does not bind states legally and is treated as a secondary source in international law, the Nuclear Weapons Advisory Opinion gives many legal points for the discussion of the legality of nuclear weapons. The ICJ put answers unanimously like this:

“A threat or use of force by means of nuclear weapons (...) that fails to meet all requirements of Article 51 [of the UN Charter], is unlawful; [a] threat or use of nuclear weapons should also be compatible with the requirements of the international law applicable in armed conflict, particularly those of the principles and rules of international humanitarian law, as well as with specific obligations under treaties and other undertakings which expressly deal with nuclear weapons[.]”¹⁵⁷

These unanimous messages from the ICJ sound like it admits a threat or use of nuclear

¹⁵⁷ Nuclear Weapons Advisory Opinion, para 105(2)C and D.

weapons as a right which can be used by states as far as it follows the relevant international law. However, a number of judges of the ICJ do not think in this way considering other parts of the advisory opinions and each judge's individual opinions on this matter. As ICJ advisory opinion itself only has an advisory effect, distortion of legal effect does not have to be concerned. Interpreting each judge's individual opinions will only help us to understand advisory opinion more correctly.

“There is in neither customary nor conventional international law any comprehensive and universal prohibition of the threat or use of nuclear weapons as such[.]”¹⁵⁸

Three judges, Shahabuddeen, Koroma, and Weeramantry, voted against this statement. Judge Shahabuddeen argued that the absence of the comprehensive and universal prohibition of the use of nuclear weapons does not justify the use of nuclear weapons automatically.¹⁵⁹ Both Judge Koroma and Weeramantry specifically pointed the Geneva Gas Protocol and Article 23(a) of the Hague Regulations are some examples of conventional international law which prohibits the use of nuclear weapons.¹⁶⁰ Because of the nature of the nuclear weapon that it widely influences the environment negatively, the use of nuclear weapons cannot comply with those international laws.

The most controversial part of the advisory opinion with a vote of seven in favour and seven against and with the casting vote of the President is this:

“[I]n view of the current state of international law, and of the elements of fact at its disposal, the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of a State would be at stake[.]”¹⁶¹

Falk argued that it represented new doctrinal terrain by introducing the new concept of extreme circumstances of self-defence.¹⁶² However, introducing of this new concept of

¹⁵⁸ *Ibid*, para 105(2)B.

¹⁵⁹ Nuclear Weapons Advisory Opinion, Dissenting Opinion of Judge Shahabuddeen, p. 377;

¹⁶⁰ Nuclear Weapons Advisory Opinion, Dissenting Opinion of Judge Koroma, p. 580; Nuclear Weapons Advisory Opinion, Dissenting Opinion of Judge Weeramantry, p. 435; Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare. Geneva 17.06.1925, e.i.f. 08.02.1928; Annex to the Convention: Regulations concerning the Laws and Customs of War on Land. Hague 18.10.1907, e.i.f. 01.26.1910, Regulations: Art23(a).

¹⁶¹ Nuclear Weapons, Advisory Opinion, *op. cit.*, para 105(2)E.

¹⁶² R. Falk. Nuclear Weapons, International Law and the World Court: a Historic encounter. – 91 American

extreme circumstances of self-defence is the evidence that a number of judges actually are not sure if there is a single case that nuclear weapons are used with the compliance of relevant international law. That is why judges have thought about the extreme circumstances of self-defence to imagine if it is possible to think about the lawful case of use of nuclear weapons. The conclusion is that the court cannot clearly imagine the lawful case of use of nuclear weapons

Three judges who voted against paragraph 105(2)B of the nuclear weapons advisory opinion voted against paragraph 105(2)E as well. Judge Shahabuddeen criticised that this decision holds the idea that humanitarian law does not apply to the use of nuclear weapons in the extreme circumstance of the very survival of the state.¹⁶³ Judge Koroma said the unlawfulness of the use of nuclear weapons should be examined under the unique and established characteristics of those weapons but not based on the circumstance of use.¹⁶⁴ Weeramantry also argued that once nuclear weapons are used, the *jus in bello* should be applied and under the principles of the laws of war, the use of nuclear weapons are totally forbidden.¹⁶⁵

Although other four judges, President Bedjaoui and Judges Ferrari Bravo, Herczegh and Ranjeva voted in favour for paragraph 105(2)E, they expressed similar opinions from separate opinions with abovementioned three judges. Bedjaoui argued that since the nuclear weapons and humanitarian law are mutually exclusive, the existence of the one automatically means the non-existence of the other.¹⁶⁶ Ferrari Bravo said that according to the majority of rules of international law, the use of nuclear weapons becomes automatically unlawful.¹⁶⁷ Judge Herczegh argued that the use of nuclear weapons is categorically and unequivocally prohibited.¹⁶⁸ Judge Ranjeva wrote that because of the catalytic effect of nuclear weapons, it should be regarded as unlawful.¹⁶⁹ At least seven out of fourteen judges actually think the use of nuclear weapons cannot comply with international law.

Three judges, Guillaume, Higgins and Schwebel just emphasised again that the use of nuclear

Journal of International Law 1997(64), p.64.

¹⁶³ Dissenting Opinion of Judge Shahabuddeen, *op. cit.*, p. 427.

¹⁶⁴ Dissenting Opinion of Judge Koroma, *op. cit.*, p. 571.

¹⁶⁵ Dissenting Opinion of Judge Weeramantry, *op. cit.*, p. 436.

¹⁶⁶ Nuclear Weapons Advisory Opinion, Declaration of President Bedjaoui, para 20.

¹⁶⁷ Nuclear Weapons Advisory Opinion, Declaration of Judge Ferrari Bravo, p. 285.

¹⁶⁸ Nuclear Weapons Advisory Opinion, Declaration of Judge Herczegh, p. 275.

¹⁶⁹ Nuclear Weapons Advisory Opinion, Separate Opinion of Judge Ranjeva, p. 295.

weapons should comply with international law.¹⁷⁰ Two judges, Oda and Shi, have not expressed any opinion in this matter.¹⁷¹

Only two judges, Fleischhauer and Vereshchetin, supported the interpretation that recourse to nuclear weapons could be lawful even if it violated international humanitarian law.¹⁷²

“The principles and rules of the humanitarian law and the other principles of law applicable in armed conflict, such as (...) the inherent right of self-defence on the other, which are through the very existence of the nuclear weapon in sharp opposition to each other, are all principles and rules of law. None of these principles and rules is above the law, they are of equal rank in law and they can be altered by law.”¹⁷³

However, as Warner argued, Fleischhauer’s interpretation confused the classical legal distinction between *jus ad bellum* and *jus in bello* by linking the application of *jus in bello* with the reasons for going to war.¹⁷⁴ The right of self-defence is *jus ad bellum* field. Therefore, a state has the right to enter the war as a self-defence. However, determination for the means of war is *jus in bello* field, and the humanitarian law covers this field. Fleischhauer mixed up these fields. Also, even if the humanitarian law forbids the use of nuclear weapons in the extreme circumstance of self-defence, it does not mean that inherent right of self-defence is denied. Requiring exercise of self-defence in accordance with the humanitarian law cannot be regarded as a denial of the right of self-defence.

The nuclear weapons advisory opinion concluded that it could not answer whether the use of nuclear weapons would be lawful or not. However, considering the analyses of individual opinions of Judges, seven judges out of fourteen think the use of nuclear weapons cannot go together with international law. Therefore, the ICJ nuclear weapons advisory opinion should not be interpreted that there might be a case that nuclear weapons are used in accordance with international law.

¹⁷⁰ Nuclear Weapons Advisory Opinion, Separate Opinion of Judge Guillaume, para 11; Nuclear Weapons Advisory Opinion, Dissenting Opinion of Judge Higgins, para 21; Nuclear Weapons Advisory Opinion, Dissenting Opinion of Vice-President Schwebel, pp. 321-322.

¹⁷¹ Nuclear Weapons Advisory Opinion, Dissenting Opinion of Judge Oda; Nuclear Weapons Advisory Opinion, Declaration of Judge Shi.

¹⁷² Nuclear Weapons Advisory Opinion, Separate Opinion of Judge Fleischhauer, para 5; Nuclear Weapons Advisory Opinion, Declaration of Judge Vereshchetin, p. 280.

¹⁷³ Separate Opinion of Judge Fleischhauer, *op. cit.*, para 5.

¹⁷⁴ D. Warner. The Nuclear Weapons Decision by the International Court of Justice: Locating the *raison* behind *raison d'état*. – 27 Millennium: Journal of International Studies 1998(2), p. 311.

3.1.2. Use of Nuclear Weapons under the International Humanitarian Law

1977 Additional Protocol I stipulates that “[i]n any armed conflict, the right of the Parties to the conflict to choose methods or means of warfare is not unlimited”, and this is regarded as customary international law.¹⁷⁵ To examine whether nuclear weapons can be applied in armed conflicts in accordance with the humanitarian law, the fundamental principles of international humanitarian law should be analysed. Fundamental principles of international humanitarian law are the principle of military necessity, the principle of proportionality, the principle of humanity and the principle of distinction.¹⁷⁶ As the first three principles are linked mutually, those three principles were analysed together.

The principle of distinction means the distinction between military objectives and civilian objects. Parties to a conflict must direct attacks only against lawful military objectives.¹⁷⁷ Any weapon that is incapable of distinguishing between civilian and military targets is unlawful. Regarding the acceptable range of error in a military operation, the International Criminal Tribunal for the former Yugoslavia’s (ICTY) decision on the Operation Storm case was controversial.¹⁷⁸ The original trial judgment had concluded that the Croatian army attacks on the towns were unlawful, in part on the basis that many shells fell more than 200 metres away from any lawful military objective.¹⁷⁹ However, the Appeals Chamber unanimously agreed that the Trial Chamber had not sufficiently explained the basis on which it arrived at a 200-metre margin of error as a reasonable measure of an indiscriminate attack.¹⁸⁰ The judgment even asserted that the fact that a relatively large number of shells fell more than 200 metres from fixed artillery targets could be consistent with a much broader range of error.¹⁸¹ One of the judges, Fausto Pocar, criticised this that the majority also failed to articulate which legal principles should have applied for the acceptance range of error.¹⁸²

¹⁷⁵ Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (1977 Additional Protocol I). Geneva 08.06.1977, e.i.f. 07.12.1977, Art 35(1); Nuclear Weapons, Advisory Opinion, *op. cit.*, para 79.

¹⁷⁶ Fundamental Principles of IHL, International Committee of the Red Cross (ICRC), <https://casebook.icrc.org/glossary/fundamental-principles-ihl> (11.03.2019).

¹⁷⁷ 1977 Additional Protocol I, *op. cit.*, Art 48.

¹⁷⁸ Prosecutor v. Ante Gotovina and Mladen Markač (Judgement), IT-06-90-A, International Criminal Tribunal for the former Yugoslavia (ICTY), 16.11.2012.

¹⁷⁹ Prosecutor v. Ante Gotovina, Ivan Čermak and Mladen Markač (Judgement), IT-06-90-T, ICTY, 15.04.2011.

¹⁸⁰ Prosecutor v. Ante Gotovina and Mladen Markač (Judgement), IT-06-90-A, para 58.

¹⁸¹ *Ibid*, para 65.

¹⁸² Prosecutor v. Ante Gotovina and Mladen Markač (Judgement), IT-06-90-A, Dissenting Opinion of Judge

As the ICTY had changed its standard on the range of error, it is difficult to examine precisely how much of the range of error is acceptable in international law. However, considering the fact that B-83 (1.2 Mt), current largest bomb in the US, makes most residential buildings collapse within 7.47km radius, and B-61 Mod 3 (300t), current lowest yield in US arsenal, creates the same effects within 310m radius, the ICTY's 200 metre dispute shows that nuclear weapons are far beyond the range of error already.¹⁸³ However the nuclear weapons aim targets accurately, because of their nature of large influence range, the principle of distinction cannot be obeyed automatically.

The principle of military necessity, proportionality and humanity part will be examined together from now on. The principle of military necessity allows military means which are necessary to achieve a legitimate military purpose, but the principle of proportionality prohibits incidental damage to civilian and civilian objects which are excessive compared to the expected military advantage.¹⁸⁴ The principle of humanity prohibits unnecessary suffering for the achievement of legitimate military purposes.¹⁸⁵

The term unnecessary suffering implies that some amount of suffering is necessary. To determine whether the suffering cause by a particular weapon is necessary, different alternative weapons should be compared.¹⁸⁶ If there are other means and methods of warfare which can achieve the same legitimate military purposes with less damage to civilian and civilian objects, use of means and methods of warfare with more damage to civilian and civilian objects automatically constitutes the violation of the prohibition of unnecessary suffering. Considering the fact that there is no huge (more than 310 metres radius, the current lowest yield in US arsenal) military objective which can only be destroyed by the nuclear weapons, any military necessity can be satisfied with other conventional alternative weapons with less suffering. Therefore, the use of nuclear weapons cannot co-exist with the prohibition of unnecessary suffering; this directs that nuclear weapons cannot be used under the international humanitarian law in any circumstances.

Fausto Poscar, para 13.

¹⁸³ Nukemap, The College of Arts and Letters, Stevens Institute of Technology, <https://nuclearsecrecy.com/nukemap/> (12.03.2019).

¹⁸⁴ Military necessity, ICRC, <https://casebook.icrc.org/glossary/military-necessity> (12.03.2019); Proportionality, ICRC, <https://casebook.icrc.org/glossary/proportionality> (12.03.2019).

¹⁸⁵ Unnecessary suffering, ICRC, <https://casebook.icrc.org/glossary/unnecessary-suffering> (01.04.2019).

¹⁸⁶ C. Greenwood. The law of weaponry at the start of the new millennium. – 71 International Law Studies 1998, p. 197.

3.1.3. Use of Nuclear Weapons under the International Environmental Law

Use of nuclear weapons should be examined under the international environmental law as well. Article 35(3) of the 1977 Additional Protocol I prohibits the use of means of warfare which is expected to cause widespread, long-term and severe damage to the natural environment. Article 55 of the same Protocol says the means of warfare should be used carefully not to prejudice the health or survival of people. However, the International Committee of the Red Cross (ICRC)'s introduction part of the Draft Protocols stated that it did not intend to discuss problems relating to atomic warfare.¹⁸⁷ However, Koppe argued that considering a general characteristic of the text and the fact that it does not refer to any specific weapon, it should be applied to any type of weapon.¹⁸⁸ Since the nuclear weapon is just one of the means of warfare, nuclear weapons also should be applied to the Protocols despite the ICRC's commentary. Article 35(3) and 55 of the 1977 Additional Protocol I will be violated if the nuclear weapons are used since "[a]ny types of nuclear weapons will make both blast and heat which cause significant damage on the ground in case of an air burst, a surface burst or a shallow underground burst, and radioactive contamination resulting from the explosion could cover large areas and last for a significant period of time".¹⁸⁹

3.2. Non-NPT Nuclear Powers Cases

Non-NPT nuclear powers, the DPRK, India, Israel, and Pakistan have developed nuclear weapons outside of the NPT regime. Since a treaty does not create either obligations or rights for a third state without its consent unless it is customary law, the NPT cannot oblige non-member states any obligations.¹⁹⁰ Therefore, non-NPT member states have the right to manufacture nuclear weapons for their own states and to transfer nuclear weapons to other recipients. Also, non-NPT member states do not have an obligation for nuclear disarmament. Therefore, the developments of nuclear weapons by India, Israel and Pakistan are not against international law as there is no international law which prohibits them not to manufacture nuclear weapons. Also, the trade of nuclear technology and ballistic missiles between the

¹⁸⁷ ICRC, Draft Additional Protocols to the Geneva Conventions of August 12, 1949: Commentary, 1973, p. 2.

¹⁸⁸ E. V. Koppe. Use of nuclear weapons and protection of the environment during international armed conflict. - G. Nystuen *et al.* Nuclear Weapons Under International Law. Cambridge: Cambridge University Press, 2014, p. 254.

¹⁸⁹ *Ibid*, p. 257.

¹⁹⁰ VCLT. *op. cit.*, Art 34 and Art 38.

DPRK and Pakistan during the period that the DPRK was the member states of the NPT is not against international law at least for Pakistani position since Pakistan does not have an obligation not to transfer nuclear weapons to other states.¹⁹¹

However, unlike other non-NPT nuclear powers, the DPRK should be analysed separately since the DPRK is the only state which withdrew from the NPT and conducted nuclear tests after that. The illegality of the trade between the DPRK and Pakistan was explained in the previous chapter.¹⁹² The NPT has a withdrawal provision, and it says if the party decides that extraordinary events have jeopardised the supreme interests of its country, the party can withdraw from the treaty.¹⁹³ It requires a notice to the UNSC three months in advance with the statement of the extraordinary events which jeopardise its supreme interests.¹⁹⁴ The DPRK announced its withdrawal from the NPT in 2003 with the statement of criticism for unjust IAEA inspections based on the US manipulated data and the constant US nuclear threat.¹⁹⁵ No unlawfulness was founded regarding the withdrawal issue.

However, Coppen argues that assistance that the DPRK has received as an NPT member state should refrain from the manufacture of nuclear weapons, and such assistance should either be returned or neutralised.¹⁹⁶ When the DPRK received nuclear material as an NPT member state from other NPT member states, as a return, the DPRK was obliged to follow Articles II and III of the NPT. Therefore, even if the DPRK does not have an obligation not to manufacture nuclear weapons as it withdrew from the NPT, it does not mean that assistance that it has gotten before the withdrawal can be used for military purposes. Withdrawal “does not affect any right, obligation or legal situation of the parties created through the execution of the treaty prior to its termination”.¹⁹⁷ Therefore, the DPRK development of nuclear weapons after the withdrawal should be examined whether it has developed nuclear weapons without the help of previous assistance from the NPT member states. Considering the fact that the DPRK had received the nuclear weapons technology from Pakistan when the DPRK was the member state of the NPT, previous assistance from the NPT member states probably was

¹⁹¹ See *supra* Chapter 1.2.2 for the trade between the DPRK and Pakistan.

¹⁹² See *supra* Chapter 1.2.2

¹⁹³ The NPT, *op. cit.*, Article 10.

¹⁹⁴ *Ibid.*

¹⁹⁵ KCNA 'Detailed Report' Explains NPT Withdrawal, Federation of American Scientists, <https://fas.org/nuke/guide/dprk/nuke/dprk012203.html> (14.03.2019).

¹⁹⁶ T. Coppen. Good faith and withdrawal from the Non-Proliferation Treaty. – 2 Questions of International Law 2014, p. 31.

¹⁹⁷ VCLT. *op. cit.*, Art 70.

used for the military purpose before and after the withdrawal. Therefore, although the withdrawal of the NPT itself is not against international law, the DPRK has violated international law by using its previous conditional rights for prohibited military purpose.

4. SUGGESTIONS FOR THE NEW NPT REGIME

The Treaty on the Prohibition of Nuclear Weapons (TPNW) was signed in 2017.¹⁹⁸ It is the first treaty which comprehensively prohibits the development, testing, production, stockpiling, stationing, transfer, use and threat of use of nuclear weapons.¹⁹⁹ This treaty seems equal as it does not have a two-tier system unlike the NPT, and looks safer than the NPT as it totally prohibits nuclear weapons from the world. However, it seems like it cannot be a successful treaty as it does not consider the current international politics at all. Since the TPNW requires nuclear-armed states to implement the denuclearisation process voluntarily and unilaterally, all of the nuclear-armed states are hesitant to join the treaty because they do not want to denuclearise alone.²⁰⁰ Only 70 states have signed on the treaty, and none of the nuclear-armed states has signed on the treaty. This kind of treaty might have a meaning to arouse the international society interest in the importance of nuclear disarmament which has not been completed until now for forty-nine years from the effectuation of the NPT.

However, if no single nuclear-armed state participates to the treaty, the nuclear disarmament cannot be achieved, and it does not have any practical help for the world. The author wants to suggest some new potential contents for the new NPT regime which can be practically helpful to international society. A new NPT is a treaty based on Article VI of the NPT which states the obligation for the conclusion of a treaty on general and complete disarmament under strict and effective international control. A new NPT regime might be not equal as the TPNW is, but it will be more equal than the current NPT regime as the suggestion states the clear road map for the nuclear disarmament. This compromise will increase the chance of nuclear-armed states to join the treaty. However, it will be a stepwise long-term disarmament process.

4.1. Proliferation Optimists vs. Proliferation Pessimists

The NPT aims its goal for non-proliferation of nuclear weapons and ultimately, pursues general and complete disarmament of nuclear weapons. However, if non-proliferation of nuclear weapons actually does not contribute to the prevention of nuclear war, analysis on the NPT or suggestion for a new NPT regime might be practically useless but only has a

¹⁹⁸ Treaty on the Prohibition of Nuclear Weapons (TPNW). New York 07.07.2017, not yet ratified.

¹⁹⁹ *Ibid*, Art 1.

²⁰⁰ *Ibid*, Art 4(2).

meaning for law scholars. Whether the non-proliferation of nuclear weapons actually can be helpful for a safer world will be examined.

Proliferation optimist, Waltz, said the chances of peace rise as the costs of war rise in relation to possible gains.²⁰¹

“If countries armed with nuclear weapons go to war with each other, they do so knowing that their suffering may be unlimited. (...) In a conventional world, one is uncertain about winning or losing. In a nuclear world, one is uncertain about surviving or being annihilated”.²⁰²

As the cost of war is high because of nuclear weapons, states act with more care. As he said, there was no full-scale war between nuclear-armed states since 1945. However, nuclear deterrence, one out of many factors, cannot explain all aspects of this phenomenon. Concepts of collective security or democratic peace theory can be other factors that can explain the absence of war between nuclear-armed states.²⁰³ Allowing more states having nuclear weapons according to the one factor out of many other factors is too risky.

Waltz also argued that “a deterrent strategy makes it unnecessary for a country to fight for the sake of increasing its security, and thus removes a major cause of war”.²⁰⁴ However, this also does not work as Waltz expected. As the previous chapters have examined, all nuclear-armed states are trying to increase its security by developing more modernised and destructive weapons or more sophisticated defence systems.²⁰⁵ Nuclear proliferation does not remove the necessity of increasing the security of states.

If there is no nuclear weapon in the world and nuclear energy is guaranteed to be used only for peaceful purposes under the strict and effective international control, chances of nuclear war will be almost zero. Based on this conclusion, some new contents for the new NPT regime will be suggested.

²⁰¹ K. Waltz. *The Spread of Nuclear Weapons: More May Be Better*. Adelphi Papers, no. 17. London: International Institute for Strategic Studies 1981, p. 4.

²⁰² *Ibid*, p. 7.

²⁰³ N. P. Gleditsch. *Democracy and Peace*. – 29 *Journal of Peace Research* 1992(4), pp.369-376.

²⁰⁴ Waltz. *op. cit.*, p.7.

²⁰⁵ See *supra* Chapter 2.1.

4.2. Suggestion of New Contents for the New NPT Regime

4.2.1. New NWS in the New NPT Regime

The NWS and the NNWS, a two-tier system, can continue to exist in the new NPT regime since the nuclear disarmament obligation should be imposed on nuclear-armed states. In the new NPT regime, the author recommends accepting three non-NPT nuclear powers, India, Israel and Pakistan. Since those three states have never joined the NPT and have developed nuclear weapons in accordance with international law, they should get the same status as the current NWS has. Also, the main reason for those three states not joining the NPT is that they cannot join the current NPT as the NWS since the definition of the NWS is one which has manufactured nuclear weapon before 1 January 1967. Therefore, if they can be accepted as the NWS, they probably will join a new NPT.²⁰⁶

However, the last non-NPT nuclear power, the DPRK, should not be accepted as the NWS in the new NPT regime. As it was discussed in the previous chapter, the DPRK violated international law by using the previous assistance from the NPT member states before its withdrawal from the NPT for the development of nuclear weapons.²⁰⁷ Illegal nuclear weapons should not be accepted in the new NPT regime. Therefore, the DPRK should remove its nuclear weapons before it enters a new NPT regime and should join as the NNWS.

4.2.2. New Contents which can be applied in the New NPT Regime

In this chapter, the author suggests some contents which can be used in the new NPT regime. Legal grounds for the new NPT regime is the last part of Article VI of the current NPT. For the realistic proposals, only provisions from treaties and existing treaties and policies of states are introduced. Although the thesis is focused on the law field, the author believes that showing that there are many available realistic options including political options for the new NPT regime will be useful for the ones who are looking for a practical solution for the nuclear-weapon-free world.

Firstly, the effectuation of the CTBT can be linked to the effectuation of the new NPT. Linking effectuation of new NPT with the CTBT can encourage non-NPT nuclear powers

²⁰⁶ NPT. *op. cit.*, Article IX(3).

²⁰⁷ See *supra* Chapter 3.2.

which have not joined the CTBT yet to join the CTBT since joining the new NPT as the NWS benefits current non-NPT nuclear powers with the increase of political standings and economic benefits as they can join NSG. The CTBT requires ratification of 44 states listed in Annex 2 for entry into force.²⁰⁸ China, Egypt, Iran, Israel and the US have signed but not ratified; the DPRK, India and Pakistan have not signed at all. One of the main reasons that three non-NPT nuclear powers have not joined the CTBT is the nature of the standstill agreement of the CTBT.²⁰⁹

The CTBT does not guarantee the nuclear disarmament of powerful nuclear powers but only prohibits the further development of nuclear weapons, and, conclusively, imbalance of nuclear capabilities between nuclear-armed states will be stuck. However, if the effectuation of the CTBT is the requirement for the new NPT regime which guarantees the nuclear disarmament of all nuclear-armed states, the DPRK, India and Pakistan also do not have any reason not to join the CTBT. If the new NPT regime's nuclear disarmament plan cannot be started because of few states which have not joined the CTBT, pressure on those few states from international society will eventually make them join the CTBT. Also, as three non-NPT nuclear powers, India, Israel and Pakistan, will be accepted as the NWS under the new NPT regime, the motivation for joining the CTBT and new NPT will be increased.

Secondly, the principle of assurances of non-use and no first use (NFU) can be introduced. The non-use refers to promises given by the NWS *vis-à-vis* the NNWS. This concept should be introduced to make sure that at least the NNWS will not be attacked with nuclear weapons. This will lower the possibility of the use of nuclear weapons. Also, the NFU concept also can be the part of new NPT regime. NFU means that nuclear-armed states will not use nuclear weapons unless they were attacked first by enemy state using nuclear weapons. China and India already have an NFU policy.²¹⁰ However, Chang argued that the declaring NFU is too risky since NATO is not able to defend Baltics with conventional weapons.²¹¹ Chang pointed

²⁰⁸ CTBT, *op. cit.*, Art XIV.

²⁰⁹ L. Zerbor. India and the CTBT. The Hindu, 31.08.2016. <https://www.thehindu.com/opinion/columns/india-and-the-ctbt/article6892680.ece> (17.03.2019).

²¹⁰ D. Zhaohui. China upgrades missile force, adds space and cyber war forces. China Military Online, 01.01.2016. http://english.chinamil.com.cn/news-channels/photo-reports/2016-01/01/content_6840094.htm (16.03.2019); D. Busvine. Modi says committed to no first use of nuclear weapons. Reuters. 16.04.2014. <https://in.reuters.com/article/uk-india-election-nuclear/modi-says-committed-to-no-first-use-of-nuclear-weapons-idINKBN0D20QB20140416> (16.03.2019).

²¹¹ G. G. Chang. Declaring a no-first-use nuclear policy would be exceedingly risky. Bulletin of the Atomic Scientists, 27.07.2016. <https://web.archive.org/web/20160728162546/http://thebulletin.org/declaring-no-first->

out that a NATO war game in 2016, sixty hours was the longest time it took for Russian forces to reach the outskirts of Tallinn and Riga.²¹² However, this analysis overestimated the influence of nuclear deterrence and regarded it as an only factor which can deter a war. Although China has maintained its NFU policy for more than fifty-five years, it is still sustainable for China. However, the military capacity of NATO and that of China are not that different. Moreover, the war between states, especially between big powers, was deterred not only by nuclear weapons but also by other factors such as economic and political reasons. Nuclear deterrence is not the only reason why Russia has not attacked Tallinn until now. Therefore, adopting NFU cannot be regarded as a risky experiment.

Thirdly, current nuclear-weapon-free zones can be linked to the new NPT regime for stronger protection. The joining of the outer space treaty and seabed arms control treaty can be a mandatory requirement to state parties of the new NPT regime. However, as the main purpose of the Antarctic treaty is not focused on the restriction on nuclear weapons on the region, joining of the Antarctic treaty may not be included in the new NPT regime.

Also, the Treaty of Tlatelolco, the Treaty of Rarotonga, the Bangkok Treaty, the Treaty of Semipalatinsk and the Treaty of Pelindaba can be linked to the new NPT regime.²¹³ The nuclear-armed states under the new NPT regime should follow these treaties. This will make less chance of use of nuclear weapons in the nuclear-weapon-free zone. Also, there is a unique one-state nuclear-weapon-free zone, Mongolia.²¹⁴ The UNGA resolution recognised the declaration by Mongolia of its nuclear-weapon-free status internationally.²¹⁵ Although Mongolia's nuclear-weapon-free status law is a national law, still, it can be linked with treaties if the relevant provision which requires the non-use of nuclear weapons in those zones is added as a part of new NPT regime. Therefore, this Mongolia's nuclear-weapon-free status law also can be applied along with other abovementioned laws. Also, the new NPT regime can encourage states to legislate a national law which proclaims the nuclear-weapon-free status and the provision which automatically recognise this status can be introduced as a part

use-nuclear-policy-would-be-exceedingly-risky9689 (16.03.2019).

²¹² *Ibid.*

²¹³ Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean. Mexico City 14.02.1967, e.i.f. 22.04.1968; South Pacific Nuclear Free Zone Treaty. Rarotonga 06.08.1985, e.i.f. 11.12.1986; Treaty on the Southeast Asia Nuclear Weapon-Free Zone. Bangkok 15.12.1995, e.i.f. 28.03.1997; Central Asia Nuclear-Weapon-Free-Zone. Semipalatinsk 08.09.2006, e.i.f. 21.03.2009; African Nuclear-Weapon-Free-Zone Treaty. Pelindaba 11.04.1996, e.i.f. 15.07.2009.

²¹⁴ Law of Mongolia on its nuclear-weapon-free status. Adopted 25.09.1992, e.i.f. 03.02.2000.

²¹⁵ United Nations General Assembly Resolution 55/33. 12.01.2001.

of the new NPT regime.

Fourthly, the withdrawal clause is recommended. Otherwise, states will hesitate to join the treaty. The withdrawal clause will be similar to the TPNW's withdrawal clause.²¹⁶ The state party will have the right to withdraw from the treaty if it decides that extraordinary events related to the subject matter of the treaty have jeopardised the supreme interests of its country. The state should give notice of withdrawal twelve months in advance. Additionally, a state party, which has announced its withdrawal, undertakes negotiations with other all parties in good faith to reconsider its withdrawal decision. However, as the last part of Article 17(3) of the TPNW might be interpreted as a restriction on the national sovereignty, continuation of the imposition of obligations of the treaty on belligerent states is not recommended to be added in the new regime.²¹⁷

Fifthly, the protection from nuclear terrorism by non-state actors provision can be introduced. Although the Islamic State of Iraq and the Levant (ISIL) captured nuclear materials in 2014, it seems like the ISIL is not able to convert materials into weapons.²¹⁸ Like this case, unlike prevalent fear of nuclear terrorism by non-state actors, no non-state actor has gained nuclear weapons until now. Futter said the least probable way of getting nuclear weapons for terrorist groups is manufacturing the nuclear weapons on their own.²¹⁹ Other more probable ways are stealing nuclear weapons from nuclear-armed states or getting aid from nuclear-armed states.²²⁰ Based on this analysis, the conclusion can be found that if nuclear disarmament has been accomplished according to the new NPT, the risk of nuclear terrorism will be decreased dramatically. However, for the more nuclear-safe world, the provision for the protection from nuclear terrorism by non-state actors can be introduced. If any state party detects the activity of nuclear terrorism by non-state actors, all parties to the treaty recognise this issue as a challenge to the humankind and deal with this issue in good faith. As a specific method to deal with it, linking the UNSC resolution requesting all member states of the UN using armed force to counteract the nuclear threat by the non-state actors can be one of the examples.

²¹⁶ TPNW, *op. cit.*, Art 17(2).

²¹⁷ *Ibid*, Art 17(3).

²¹⁸ R. Sherlock. Iraq jihadists seize 'nuclear material', says ambassador to UN. The Telegraph 10.07.2014. <https://www.telegraph.co.uk/news/worldnews/middleeast/iraq/10958388/Iraq-jihadists-seize-nuclear-material-says-ambassador-to-UN.html> (17.03.2019).

²¹⁹ Futter, *op. cit.*, p. 259.

²²⁰ *Ibid*, p. 260.

Lastly, specific nuclear disarmament plan should be introduced. According to the Futter, land-based ICBM is weak at a pre-emptive strike, and cannot be cancelled after the launch. Air-based nuclear weapons are also weak at air defence network and anti-aircraft weapon. However, compared to other nuclear weapons deliveries, SLBM does not have any strategical shortcomings. SLBM is just expensive, and it is difficult to develop the technology.²²¹

Therefore, the author wants to suggest the removal of all the nuclear weapons deliveries except SLBM. The French Navy nuclear weapons system looks like it is the most effective and stable system. “[T]he French Navy maintains a continuous at-sea deterrent posture with at least one boat on patrol, one preparing for patrol, one returning to port, and one in maintenance”.²²² The suggestion for nuclear disarmament system for the new NPT is based on this system.

Ultimately, only the maximum of four SSBNs and forty-eight SLBMs are allowed for the new NWS. This number is suggested based on the current number of SLBM of the French Navy. The number can be changed based on the agreements between politicians. The author recommends MIRV not to be allowed since it can increase the killing power easily. Therefore, forty-eight SLBMs are forty-eight nuclear warheads. Other nuclear weapons deliveries and nuclear stockpiles (deployed and reserved) are not allowed. The new NWS must disarm their nuclear capabilities no later than certain years after entry into force of the new NPT. The due date should be decided by politicians. The specific disarmament schedule can be divided into many phases like clause from the New START.²²³ Since the current gap between the number of nuclear weapons of the US and Russia and those of other nuclear-armed states are huge, disarmament schedule can be determined differently. For example, the US and Russia should not exceed 350, for deployed ICBMs, deployed SLBMs and deployed heavy bombers no later than thirty-six months after the effectuation of this treaty, while other nuclear-armed states should not exceed 50, for same weapons no later than the same date.

Also, further development and testing of non-SLBM weapons are comprehensively prohibited right after the effectuation of new NPT. Development and testing of SLBM-related weapons also will be prohibited certain years after the effectuation of new NPT. The determination for the period of time is a field of politics. Therefore, nuclear weapons capability certain years

²²¹ *Ibid*, pp. 61-65.

²²² French nuclear forces, *op. cit.*, p.51.

²²³ START I, *op. cit.*, Art II(2).

after the effectuation of new NPT will be the final level of nuclear capabilities for all nuclear-armed states. Subcritical test, which is allowed under the CTBT, will be banned certain years after the effectuation of new NPT. Therefore, under the new NPT, the NWS enjoy only limited rights for the manufacture and the development of nuclear weapons for a while. Certain years after the effectuation of new NPT, the NWS only has the right to possess and maintain current nuclear weapons. For strict and effective international control, each NWS also must accept safeguards.

CONCLUSION

Failure of conclusion of agreement in the US and the DPRK summit in Hanoi in 2019, the armed conflicts between two non-NPT nuclear powers, India and Pakistan, the US withdrawal of the JCPOA and the recommence of sanctions on Iran by the US and the new nuclear arms race are the obstacles that the world face at the moment. Although most of (or some of) international law regarding the nuclear weapons have been obeyed by most of the nations, some of them have been violated by the NWS and the DPRK. Based on the analyses, some new contents which can be applied to the new NPT regime was suggested.

The first pillar of the NPT, non-proliferation, is the obligation for the NWS not to transfer to any recipient nuclear weapons, and not to assist, encourage or induce the NNWS to manufacture nuclear weapons. Since the definition of nuclear weapons in the NPT is regarded as only nuclear warheads, the missile sales between the US and the UK under the PSA is not against the law.

Regarding the Indian nuclear weapon development, the US violated the non-proliferation obligation by leading the recognition of India as a *de facto* nuclear power in international society. The key point of the US-India Civil Nuclear Agreement is that India would take IAEA safeguards of its civil nuclear facilities only, and India is allowed to enter the international nuclear market by receiving a waiver from NSG rule. It is difficult to say that the US encouraged India to manufacture nuclear weapons, but this recognition as a *de facto* nuclear power itself became an encouragement for other potential nuclear-armed states to manufacture nuclear weapons. Although the heaviness of illegality should be evaluated differently as the US actively led the recognition of India as a *de facto* nuclear power, all of other NWS also violated the non-proliferation obligation by accepting India entering the NSG with exceptional advantages. Because of nature of the unfair system which allows only the NWS possessing nuclear weapons, ironically, although non-NPT nuclear powers have developed in accordance with the international law outside the NPT regime, the NWS have an obligation not to recognise them as *de facto* nuclear powers inside the NPT regime.

Regarding the Iranian nuclear weapon development, the US violated the UNSC resolution 2231 by imposing sanctions on Iran. Since the JCPOA does not bind the US as it is an unsigned document, even if the US does not follow the agreement, it is not against anything in

the perspective of international law. However, as the UNSC resolution 2231 calls upon all member states to take actions as may be appropriate to support the implementation of the JCPOA, the US, the member states of the UN should obey the UNSC resolution. Furthermore, as the ICJ ordered in 2018 that the US must lift its sanctions on Iran in accordance with its obligations under the 1955 Treaty. Although the US proclaimed its withdrawal from the 1955 Treaty, the US still has an obligation to lift its sanctions on Iran as illegal acts of the US have happened before the proclamation of its withdrawal.

Article VI of the NPT states three obligations to the NWS to pursue negotiations in good faith: cessation of the nuclear arms race, nuclear disarmament and the conclusion of a treaty on general and complete disarmament. According to the decision of the Arbitration Tribunals, an abnormal delay is a case of violation of the rules of good faith. An obligation to negotiate does not imply an obligation to reach an agreement according to the Advisory Opinion of PCIJ. However, considering the mention of the phrase, at an early date, in the cessation of the nuclear arms race part, this part should have been observed already. Otherwise, abnormal delay of forty-nine years will be the evidence of a violation of the rules of good faith. Although the quantity of nuclear warheads of most of the NWS (except China) has been decreased, the quality of nuclear weapons, especially nuclear weapons deliveries, has been researched and developed until now by all NWS. Furthermore, the US withdrawal of the ABM Treaty spurred new nuclear arms race as it led the Russian withdrawal of START II. The CTBT has not been ratified by two NWS, China and the US. The author concludes that all NWS violated their obligations on the cessation of the nuclear arms race part in several ways. Nuclear disarmament and the conclusion of a treaty on general and complete disarmament have been complied by no NWS as they even have not kept obligation for the cessation of the nuclear arms race.

Regarding the legality of use of nuclear weapons under international law, according to the ICJ Nuclear Weapons Advisory Opinion and each judge's individual opinions on this matter, although the ICJ gave up to give an answer whether the use of nuclear weapons can be legal or not, seven judges out of fourteen expressed their opinion separately that the use of nuclear weapon itself cannot be complied with international law because of its tremendous power. Also, since nuclear weapons cannot distinguish civilian and military targets and cannot avoid unnecessary suffering, the use of nuclear weapons cannot be legal always under the international humanitarian law. Moreover, Article 35(3) and 55 of the 1977 Additional

Protocol I which prohibits the use of means of warfare which are intended or expected to cause widespread, long-term and severe damage to the natural environment will be violated automatically if any kinds of nuclear weapons are used as their harm on natural environment is serious enough to breach the international environmental law all the time.

Regarding the non-NPT nuclear powers, as India, Israel and Pakistan have not joined the NPT, developments of nuclear weapons by those states are not against international law. However, in the DPRK case, although its withdrawal from the NPT was conducted in accordance with Article X of the NPT, its development of nuclear weapons itself is against international law since the DPRK started to develop nuclear weapons before its withdrawal from the NPT. Moreover, as an NPT member, the DPRK had received assistance from other NPT members, and as this assistance must be used for the DPRK's development of nuclear weapons, the development of nuclear weapons of the DPRK is against the international law for sure, and it should not be accepted as the NWS in the new regime.

Some new contents for the new NPT regime were suggested based on the analyses from the previous three chapters. The new NPT regime is expected to be concluded according to the last part of Article VI which mentions the treaty on general and complete disarmament under strict and effective international control. India, Israel and Pakistan can be accepted as the new NWS since they have developed nuclear weapons without the violation of international law while the DPRK should implement its total denuclearisation and re-join the new NPT as the NNWS since its development is illegal from the beginning.

The effectuation of new NPT can be linked to the CTBT since the CTBT requires the ratifications of all nuclear-relevant states for its effectuation, all nuclear-armed states can start nuclear disarmament process at the same time. Assurances of non-use to the NNWS and NFU concept can be applied as an obligation for the NWS. Current nuclear-weapon-free zones also can be linked to the new NPT regime for more safety. Also, one-state nuclear-weapon-free zone like Mongolian case can be encouraged, and they can be linked to the new regime as well. The withdrawal clause is advised to be introduced to encourage states to join the new regime. However, it is recommended to require a notice of a longer period than three months in advance its withdrawal. Also, the obligation to enter negotiations with other parties in good faith to reconsider its withdrawal after the announcement of withdrawal can be introduced. Since SLBM is the most effective nuclear weapons delivery, removing all other nuclear

weapons deliveries except SLBM was suggested. The process of nuclear disarmament can be done step by step.

Nuclear weapons have not been used since 1945. However, international concern on nuclear weapons has existed all the time. Since the NPT has an unequal system which allows one group to possess nuclear weapons whereas the other group is not allowed to have nuclear weapons, it has fundamental illogical contradictions. As Article VI of the NPT states the general and complete disarmament of all nuclear weapons, we can infer the temporary system of the NPT. However, since 1970, the effectuation of the NPT, there is no clear and specific nuclear disarmament plan. The most certain way to be free from the fear of nuclear weapons is the total removal of nuclear weapons of all states. The author hopes this thesis is helpful to remind the importance of the total denuclearisation of all states and is useful to find concrete and sophisticated way for the general and complete nuclear disarmament under strict and effective international control.

ABBREVIATIONS

ABM Treaty - Anti-Ballistic Missile Treaty

ALCM - Air-Launched Cruise Missiles

CTBT - Comprehensive Nuclear-Test-Ban Treaty

DPRK - Democratic People's Republic of Korea

ENDC - Eighteen-Nation Disarmament Committee

IAEA - International Atomic Energy Agency

ICBM - Intercontinental Ballistic Missiles

ICJ - International Court of Justice

ICRC - International Committee of the Red Cross

ICTY - International Criminal Tribunal for the former Yugoslavia

ISIL - Islamic State of Iraq and the Levant

JCPOA - Joint Comprehensive Plan of Action

JDDKP - Joint Declaration of the Denuclearization of the Korean Peninsula

LEP - Life Extension Programmes

MIRV - Multiple Independently Targetable Re-entry Vehicles

NAM - Non-Aligned Movement

NATO - North Atlantic Treaty Organisation

NFU - No First Use

NNWS - Non-Nuclear Weapon States

NPT - Nuclear Non-Proliferation Treaty

NSG - Nuclear Suppliers Group

Nuclear Weapons Advisory Opinion - Legality of Threat or Use of Nuclear Weapons 1996
Advisory Opinion

NWS - Nuclear Weapon States

PCIJ - Permanent Court of International Justice

PLA Navy - People's Liberation Army Navy

PSA - Polaris Sales Agreement

PTBT - Partial Nuclear Test Ban Treaty

ROK - Republic of Korea

SLBM - Submarine-Launched Ballistic Missiles

SSBN - Nuclear Powered Ballistic Missile Submarines

START II - Strategic Arms Reduction Treaty II

TPNW - Treaty on the Prohibition of Nuclear Weapons

UK - United Kingdom of Great Britain and Northern Ireland

UNGA - United Nations General Assembly

UNSC - United Nations Security Council

US - United States of America

US-India Civil Nuclear Agreement - Agreement for Cooperation between the Government of the United States of America and the Government of India concerning peaceful uses of nuclear energy

USSR - Union of Soviet Socialist Republics

VCLT - Vienna Convention on the Law of Treaties

WMD - Weapons of Mass Destruction

1955 Treaty - Treaty of Amity, Economic Relations, and Consular Rights between the United States of America and Iran

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