



Facultad de Ciencias Sociales y Humanidades
Grado en Relaciones Internacionales

Trabajo Fin de Grado

A COMPARATIVE STUDY ON THE LEGAL AND ILLEGAL FORMS OF ACQUISITION OF NUCLEAR WEAPONS: FRANCE AND UK vs NORTH KOREA AND PAKISTAN

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LIST OF ABBREVIATIONS

ABMT: Anti-ballistic Missile Treaty
ALCM: Air-Launched Cruise Missile
CASD: Continuous patrolling At-Sea Deterrence
CEA: Commissariat of Atomic Energy
CTBT: Comprehensive Nuclear Test Ban Treaty
FMCT: Fissile-Material Cut-off Treaty
IAEA: International Atomic Energy Agency
IDC: International Data Center
IMS: International Monitoring System
KANUPP: Karachi Nuclear Power Project
MAD: Mutual Assured Destruction
MIRV: Multiple Independently Targeatable Reentry Vehicles
NPT: Non-Proliferation Treaty
NWFZ: Nuclear Weapon Free Zone
PINSTECH: Pakistan Institution of Nuclear Science and Technology
PTBT: Partial Nuclear Test Ban Treaty
SLBMs: Submarine-launched ballistic missiles
SORT: Strategic Offensive Reductions Treaty
SSBN: Ballistic missile submarines
START I/II: Strategic Arms Reduction Treaty
UN: United Nations
UNSC: United Nations Security Council
USSR: Union of Soviet Socialist Republics

ABSTRACT

The Non-Proliferation Treaty (1968) (from now on NPT) only allows to possess nuclear weapons (legally) to the five permanent members of the Security Council (UK, France, Russia, China and the US) because they conducted a nuclear test prior to 1st January 1967. Therefore, all newly nuclear armed states after the TNP do not have a legal bases for its ownership and encourage with this unlawful behavior the horizontal proliferation among the members of the international community.

Throughout this essay, we will analyze the different forms to obtain nuclear weapons used by four states, two of them legally (France and UK) and two of them illegally (North Korea and Pakistan). We will conclude that the global impact on international security of all four cases are not the same especially in regard to the threat they are considered to pose to international peace and security.

KEY WORDS

Proliferation, nuclear, NPT, UK, France, North Korea, Pakistan

RESUMEN

El Tratado de No Proliferación (1968) (en adelante, TNP) solo permite poseer armas nuclear de manera legal a los cinco miembros permanentes del Consejo de Seguridad (Reino Unido, Francia, Rusia, China y Estados Unidos) dado que realizaron sus ensayos nucleares antes del 1 de enero de 1967. Por ende, todos los Estados que se hayan nuclearizado tras la firma del TNP no están en posesión de armas nucleares con un base legal y, alientan con este comportamiento ilegal la proliferación horizontal entre los miembros de la comunidad internacional.

A lo largo de este ensayo, analizaremos las diferentes formas de obtener armas nucleares comparando cuatro Estados, dos de ellos habiéndolas adquirido legalmente (Reino Unido y Francia), y dos de ellos ilegalmente (Corea del Norte y Pakistán). Concluiremos que, el impacto de la respectiva proliferación de esos Estados no ha sido el mismo sobre la paz y seguridad internacionales.

PALABRAS CLAVE

Proliferación, nuclear, TNP, RU, Francia, Corea del Norte, Pakistán.

CHAPTER 1: INTRODUCTION

1.1 STATE OF THE ART

Since the end of World War II, the international community has worried¹ about nuclear arms dissemination (Ortega, 2016) (Garrido, 2011 b). This is because nuclear weapons are the most destructive kind of arms (Garrido, 2011 b) and they have created a disequilibrium in security strategy since its outset (Ortega, 2016). The higher the number of states in possession of nuclear weapons, the higher the risks of a nuclear disaster (Bardají & Portero, 2007).

- **Authors**

Vicente Garrido is one of the greatest experts on the field of nuclear proliferation and considers the NPT (Garrido, 2011 a) to be an essential element in non-proliferation, despite its discriminatory nature and opposite to what other authors like Bardají & Portero² (2007) might believe. Since the NPT was signed, only non-signatory states (plus the withdrawn North Korea) have reached enough capacity to successfully deploy a nuclear bomb. However, he deems now necessary to reform the NPT (Garrido, 2011 b).

Garrido has deeply studied denuclearization, dividing the historical process into three phases (2011 a): “lento”, “andante moderatto” and “allegro ma non troppo”. Firstly, denuclearization was not a priority in the international security agenda and the primitive non-proliferation concept, was aimed at studying the probabilities of a nuclear war based on the possibilities of horizontal proliferation and as a consequence of a nuclear accident. It then evolved into a prime concern and attempts to universalize the recognition of the NPT were made, given the intentions of Pakistan, Israel and India. Finally, new initiatives like the fight against nuclear terrorism had been identified as a prime source of international insecurity too and the objective of a world free of nuclear weapons has been set.

As a matter of fact, from 2007 onwards, many scientists have named nuclear proliferation “a second nuclear era” (in the Bulletin of the Atomic Scientists, cited by Garrido 2011 b), due to the withdrawal of the US from the Anti-ballistic Missile Treaty (from now on

¹ This statement is backed by several security reports such as the 2010 NATO strategic Concept, revised in 2020 and National Security Strategic Plans such as the Spanish one (Ortega, 2016).

² The apparent state of impunity under which the non-proliferation regime is, shows that the political costs of the NPT infringement are minimal (Bardají & Portero, 2007)

ABMT) and the Russian complains about START II (currently SORT), and a wave of nuclear disarmament has had a considerable impact.

Gracia Abad (2012) has highlighted that states in possession of nuclear weapons illegally (outside of the NPT frame), such as North Korea, represent a larger menace for the non-proliferation regime than the *de iure* nuclear states; not only because of their nuclear program but also due to the possibilities of transmission of nuclear knowledge to other non-nuclear states, encouraging them to proliferate too.

David García Cantalapiedra (2010) has deduced that elements like idiosyncrasy and national interest (such as those of China), stop nuclear proliferation from being properly tackled.

Nuno P. Monteiro and Alexandre Debs (2014) have supported a security-based theory of proliferation, in which a state, in order to proliferate, must have both willingness and opportunity. Whereas the former element requires the existence of a “grave security threat against which no ally offers reliable protection”, the latter demands “high relative power vis-à-vis its adversaries or enjoy the protection of a powerful ally”. They also support an empirical design where the end of the Cold War, diminished peril and ability to proliferate among non-US allies, leading to inferior advantages of nuclearization.

Scott D. Sagan (cited by Monteiro & Debs, 2014) has tried to figure out all the different reasons why a state would nuclearize by using three categories: a) nuclearization due to the perception of a particular threat (security model), b) nuclearization dependent on domestic actors and national bureaucracy (domestic politics model); and c) nuclearization based on national identity and symbolism (norms model). Sagan has highlighted the relation between France’s proliferation and the norms model, since the attempt to reach grandeur and improve their international position was essential in the decision-making process.

Victor W. Sidel and Barry S. Levy (2007) on their side, have uttered that nuclear proliferation is not only dangerous for the international security, but also represents a menace for public health, and therefore it is urgent to tackle this issue. They have highlighted the importance of both nuclear proliferation and its delivery mechanisms, as well as the necessity of harsher controlling procedures. Moreover, they recognize the

impact of nuclear proliferation on non-state actors such as nongovernmental organizations, professional organizations or even society.

George Schultz strongly believes that “*proliferation begets proliferation*”. If a state perceives a threat from another state because of the latter’s acquisition of nuclear weapons, the former might act in the same way to protect itself. This explains both the British and the French nuclearization: the growing Soviet nuclear menace combined with the distrust towards the American (nuclear) capacity to protect them (Ortega, 2016). This can also justify the Pakistani nuclearization, since the Indian nuclear program alerted the Pakistani authorities, who perceived their neighbors as a great threat to their security (Ortega, 2016).

Rafael L. Bardají and Florentino Portero (2007) have, in line with what Schultz affirmed, declared that the perceptions of a state on its neighbor’s arms acquisition (including nuclear arms) matter, and can easily lead to an arms race. This will only destabilize the international system and is likely to provoke confrontation. Therefore, these authors advocate for the instauration of an actually strong authority to enforce the nuclear accords and treaties: if there is a sense of generalized compliance, a trustworthy environment will arise. Yet, the current non-proliferation regime is still very vague.

Moreover, they note that the mutual assured destruction (MAD) concept during the Cold War, altered the definition of victory, raising the cost of winning to unimaginable levels. However, this deterrence logic is not applicable to all cultures: in the Iranian Israeli conflict, negotiation, arms control and mutual deterrence will not always work. In fact, resorting to nuclear means will not be always seen as a last resource.

Michael D. Cohen and Aaron Rapport (2020) think that the leaders’ hindsight biases and their level of engagement in foreign policy, will determine the particular reaction of their nation to nuclear proliferation and the shifts in the balance of power. As a matter of fact, Garrido (2011 b) agrees on the fact that the behavior of nuclear states’ leaders is crucial because they send a “psychological signal” to the rest of the world, altering then their level of concern and alarm.

Sidra Hamidi (2020), raises the question of a NPT’s “created space”, whereby the disempowered have been able to gain more influence from below. Nye (1992) agrees in that with her (1992), since the elitist character of the NPT can be easily reduced by the

acquisition of nuclear arms by new states (outside of the NPT framework). This way, there can be an “equalizing effect on world politics”. Expanding this notion, Ortega García (2016) has suggested the possibility of altering the international system by placing more value on other non-nuclear elements. For example, the inclusion of non-nuclear states among the permanent members of the UNSC would send a discouraging message concerning nuclear proliferation.

Anne Finger (2012), despite the unclear achievability of her proposal, strongly believes European countries should take action to accomplish the so-called Global Zero, and therefore, to promote the complete elimination of nuclear weapons in the world. The Global Zero is an increasingly important debate due to contributions such as the 2007 Barack Obama’s Speech in Prague or articles published on the Wall Street Journal by Henry Kissinger, Sam Nunn or George Schultz.

- **Perspectives**

From an international relations point of view, Susan Strange believes (cited by Ruzicka, 2018) that four specific bargains prevail over the regime type regarding nuclear proliferation. These four elements are: a) the level of conspiracy among superpowers intriguing the non-proliferation treaty, b) coercive diplomacy and the use of force in averting the acquisition of nuclear weapons, c) institutional objections to the stipulated non-proliferation regime and d) the existence of state hierarchies according to the non-proliferation rules. Ruzicka (2018) on his part, has opined that the success of the non-proliferation regime hides behind the “veil of good intentions”, i.e the spread belief that non-proliferation is both morally and practically good for all. This idea has been unsurprisingly promoted by the nuclear states, placing the notion of non-proliferation ahead of denuclearization and therefore enjoying a “superior ability to wield the non-proliferation norm” (Ruzicka 2018, p. 383).

According to Kenneth Waltz (1981), a safer world would be possible if there were an increase of states in possession of nuclear weapons. He took the example of nuclear deterrence during the Cold War and extrapolated it to the rest of the world by regions. However, the balance of power that existed in the bipolar world between the USSR and the US back then, is not currently the case in a multipolar world. It is important to note that nuclear proliferation costs will be borne both by nuclear and non-nuclear states because we live in a globalized world and once someone has nuclear weapons, anyone can be

attacked (Nye, 1992).

At this point, personalities like Henry Kissinger and George Shultz and Mikhail Gorbachev (in spite of their lack of idealist spirits) have realized the turning point in which we find ourselves nowadays and the decreasingly effective deterrence logic (cited by Mancisidor, 2009).

Finally, Ban Ki-moon introduced the importance of civil society in this matter as public opinion has had an impact in previous projects such as the Ottawa Process to forbid anti-personnel mines (Mancisidor, 2009).

Conversely, when nuclear proliferation is used to pursue political goals, it can easily have disproportionate effects and unexpected outcomes (Waltz cited by Nye, 1992).

According to Waltz (cited by Nye, 1992), the leaders of a (nuclear) state are important when it comes to nuclear proliferation and recognizes their rationality regarding the dichotomy ends-means. Vicente Garrido (2019) has reached the same conclusion in the North Korean case taking into consideration Kim Yong un' conduct and finding it as rational as it could be, as opposed to what most Westerns would think.

On the other side, authors like Christopher Way and Jessica L.P Weeks (2014), have discovered that the regime type has an impact on the decision to acquire nuclear weapons, by comparing both the behaviors of democracies and non-democracies. They have asserted that highly personalistic and centralized dictatorships are more likely to develop their own nuclear program, since the restrictions applying to them are lesser than in other kinds of regimes. This differentiation in the regime type regarding nuclear proliferation has also been noticed by authors like Bardají & Portero (2007), since they believe that theocratic regimes such as Iran do not have the same life philosophy that atheist regimes do: the former are more likely to embark in a collective suicide because of their beliefs in an afterlife.

The regime stability also affects the chances of a nuclear weapon being used, since a dethrone of a government in control of nuclear weapons, increase the possibility of them being used. Besides, from the newly nuclear states, only a few are able to comply with the required safety devices and systems of control, which increases the probabilities of nuclear accidents. Furthermore, black markets might grant access to nuclear weapons to terrorists

(Nye, 1992).

Obama, in the Prague Speech (2009), evinced the moral obligation of nuclear states, particularly that of the US³, to fight nuclear proliferation and boldly encouraged the international community to jointly denuclearize.

- **Magazines**

The main magazines that have revealed the importance of nuclear proliferation are: International Security, Journal of Nuclear Materials, International Journal of Global Energy Issues (IJGEI), Security Studies, Security Dialogue, Journal of Global Security Studies, UNISCI Journal, Política Exterior, Cuadernos de estrategia, Manual de estudios estratégicos y seguridad internacional, International Security, European Journal of International Relations, International Politics.

- **Think tanks**

The think tanks that have done the most research on non-proliferation include the following: Institute for Peace Research and Security Policy (IFSH), Peace Research Institute Frankfurt (PRIF), Stockholm International Peace Research Institute (SIPRI), RAND Corporation and Brookings Institution, Instituto Español de Estudios Estratégicos (IEEE) and Elcano Royal Institute for International and Strategic Studies.

- **Successes and unresolved questions**

There has been a widespread consensus on the fact that, the more states in possession of nuclear weapons, the more chances of them being used; ergo, a bigger threat to international peace and security, except Waltz. Besides, it is clear that the future of civilization is completely dependent on the sanity of nuclear powers (Bertrand Goldschmidt cited by Garrido in 2011 a), even though, the international community might seem to forget that at times (Ortega, 2016).

On the contrary, nobody can deduce what the best solution is to stop non-proliferation de facto. Some proposals have been suggested such as the Global Zero Initiative or the imposition of harsher sanctions on the uncomplying states such as North Korea, but the

³ Since they are the only ones in history to have deployed a nuclear bomb.

truth is that the international community has failed in preventing nuclear proliferation and now there is nothing certain to stop the spread of nuclear knowledge (Ortega, 2016).

Furthermore, a very intriguing question will be left unresolved: to what extent is the international community ready to comply with the non-proliferation regime? We cannot know because there are still several examples of nuclear states⁴ that openly allow violations of the NPT if their national interests require so. Under certain circumstances, an economic joint action against the violators of treaties like the NPT would have been enough to control the situation, but the international community was not even willing to do so. This is why some authors like Bardají & Portero (2007) believe that the non-proliferation regime is already broken and a selective denuclearization⁵ will not change a thing.

1.2 QUESTIONS AND OBJECTIVES

The objective of this essay is to explain the non-proliferation regime in place together with its weaknesses and how they have been used by certain nation states to proliferate. Whereas some countries like France or UK have decided to adhere and respect the NPT, others like North Korea have revealed what a great menace nuclear proliferation still represents by withdrawing from the NPT (Ortega, 2016).

Moreover, we will try to illustrate whether states and international institutions are able or unable to control nuclear proliferation.

To what extent can the international community be capable of controlling nuclear proliferation? Can we say the NPT has been the most successful mechanism in regard to nuclear proliferation and its prevention? Are economic sanctions a suitable means to deter vertical proliferation? What would the best possible solution be to prevent nuclear proliferation (both horizontally and vertically)? Is “Global Zero” a feasible solution to prevent proliferation? Is nuclear proliferation really outside authorities’ hands?

All authors provide their point of view in the matter, but nobody dares to predict the future nor proposes a definitive method to end nuclear proliferation in the world.

⁴ Russia and China have appeared favorable to certain illegal conducts when their national interests would see themselves benefitted by it. For instance, Russia has been very understanding with Iran regarding their nuclear program, because they want to work together towards a gas cartel (Bardají & Portero, 2007).

⁵ A partial denuclearization where the states perceived as a bigger threat, denuclearize. An example could be North Korea (Bardají & Portero, 2007).

1.3 HYPOTHESIS

The only way to acquire nuclear weapons nowadays is by illegal means, since the NPT (1968) only allowed five states -the so-called *de iure* nuclear states- to possess nuclear weapons legally.

Therefore, the signing and adoption of the NPT (independent variable) has represented an insurance to comply with the non-proliferation regime in place, whereas its refusal or withdrawal has resulted in states breaking international law because they do not recognize that non-proliferation regime.

1.4 METHODOLOGY

The methodology used in this essay is the comparative method in which four cases will be explained to reach an empirical generalization and a hypothesis verification.

Moreover, it will be qualitative since the number of cases is limited (four) and not the same conditions apply to all of them. In one hand, United Kingdom and France will be within the NPT framework and therefore possess nuclear weapons legally; and in the other hand, North Korea and Pakistan will have acquired and held nuclear weapons illegally.

1.5 TIME AND GEOGRAPHICAL FRAME

The NPT (1968) ushered the beginning of the non-proliferation regime and the first attempts within the international community to reduce the nuclear arsenals and to stop the rest of countries from arming themselves.

This comparison will be made in a synchronic manner and at an international level.

Whereas France and United Kingdom acquired nuclear weapons after the Second World War, fearing the growing potential of the Soviet Union; Pakistan started to run their nuclear program in 1972, to counter the conventional arms superiority of India. Finally, North Korea obtained the knowledge to acquire nuclear weapons from Pakistan in the nineties (Torres, 2020)

1.6 THEORETICAL FRAME

By applying the logic of realism, we will realize that the acquisition of nuclear weapons entails a significant military advantage. The nuclear states are perceived to be “untouchables” in the international arena and hold a great power, given their deterrence capacity. These (apparent) advantages of the possession of nuclear weapons explain why several states have intended to obtain their own nuclear arsenals (Ortega, 2016).

Realism is the theory that best makes sense of the acquisition of nuclear weapons in general, since it is based on perceptions of threats. As a matter of fact, France and UK started their own nuclear programs due to the Soviet threat, so did Pakistan in relation to India (Torres, 2020).

CHAPTER 2: THE NON-PROLIFERATION REGIME AND THE NPT BACKGROUND

2.1 INTRODUCTION

Nuclear proliferation is one of the most intricate issues nowadays affecting the international peace and security due to its destructive capacity (Fernández, 2009): an unshackled nuclear interchange would destroy “*civilized life as we know it*” (Kissinger, Nunn, Perry & Shultz 2011, párr. 4); plus is not an only one solution problem.

The acquisition of nuclear weapons by certain states, further described in the following chapter, put at risk the traditional regime of non-proliferation set in place by the NPT (Nye, 1992), and highlights that “*reliance on nuclear weapons (...) is becoming increasingly hazardous and decreasingly effective*” (Shultz, Perry, Kissinger & Nunn 2007, párr. 2). Deterrence is still an essential concept in nuclear proliferation, but we must be aware that we no longer live in the Cold War Era and in the current multipolar world -with multiple nuclear powers-, the MAD doctrine has rendered obsolete (Shultz et al., 2007). The fact that some states have not fully complied with their international obligations (arising from the NPT) nor have acted in good faith as the principle of state equality requires, have threatened other states’ sovereignty and curbed peaceful interactions within the international community. One of the main sources of worry for non-nuclear states is the disproportionate and gigantic attributes the possession of this armament entails (Bagheri, 2018).

In relation to the NPT, we deem necessary to briefly explain its content and objectives in order to better understand the non-proliferation regime, since this treaty is its cornerstone. The NPT was signed on the 1st of July 1968, entering into force in 1970. At present, 191 states are party to this pact, i.e all states in the world have ratified it except for North Korea⁶, Israel, Pakistan and India (Garrido 2019, p. 130). The premise from which this treaty works is that any nuclear state will not be legally recognized as such, unless they carried out a nuclear test before the 1st of January 1967. Thus, it classifies states into two categories with different obligations, allowing a group of states (*de iure* nuclear states) being in a legitimate possession of nuclear weaponry but categorically banning the rest of the world from acquiring, receiving or storing nuclear explosives (Garrido, 2010). In a nutshell, the NPT forbids the nuclear arms proliferation to states that did not conduct a nuclear test before the 1st of January 1967, it promotes denuclearization for nuclear states, and it secures a pacific use of nuclear energy for all. It was reviewed and indefinitely extended in 1995 in an attempt to universalize its provisions (Garrido, 2010).

2.2 ASYMMETRIES

Although it has been one the most successful covenants of all times, it institutionalizes discrimination within the international community, considering only five states as *de iure*: US, Russia, China, UK and France (Garrido 2010, p. 11); and it lacks an efficient mechanism to sanction non-complying states (Garrido, 2005). That is why it has been criticized for its unequal provisions between nuclear and non-nuclear states (Bagheri, 2018): the so-called horizontal proliferation has been deliberately prioritized over the vertical one, allowing the *de iure* nuclear states to breach their disarmament commitments⁷ (Garrido, 2005) and violating by doing so the principle of sovereign equality of states⁸ (Bagheri, 2018). But “why would any state give up such powerful sources of security”? (Sagan 1996, p. 60). *De iure* nuclear states must be realistic, and realize the actual possibility of horizontal proliferation, given their own vertical proliferation⁹ (Bagheri, 2018). Events like the failed denuclearization negotiations between the US and Russia, especially after the START I treaty, have had a negative impact on the non-proliferation

⁶ North Korea withdrew from the NPT in 2003, becoming a *de facto* nuclear state in 2017, having carried out its sixth nuclear test (Garrido, 2019).

⁷ The US and France have renewed and widened their nuclear arsenals since 2000 (Bagheri, 2018).

⁸ Which establishes that “sovereign states have an equal right to security, self-defence and the possession of weapons” (Bagheri 2018, p. 17).

⁹ For instance, Russia and the US have been developing their technology, engineering the so-called “mini nukes” (Bagheri, 2018).

regime and the respect for the NPT obligations. If the two greatest nuclear powers do not seem to engage in disarmament, non-proliferation should not be expected from the rest (Fernández, 2009).

Furthermore, we must clarify that the NPT makes a distinction between the peaceful uses of nuclear energy and the military ones in its article 4. The former is recognized to all states party to the treaty as an “inalienable right” enabling them to “develop, research, product and use nuclear energy”; whereas the later is only conceded to the *de iure* nuclear states. That said, states’ word is the only source of differentiation, since the NPT sets a “framework of mutual trust” (Fernández 2009, p. 331) that has been abused in cases like the North Korean one. It has been argued that this is due to the excessive permissiveness of article 4 of the NPT, which allows the signatories to place themselves in the red line between military and civilian purposes: article 4 permits the development of closed fuel cycles, including uranium enrichment and plutonium reprocessing. That is to say that all states can equip themselves with essential materials and capabilities for military programs (Torres, 2020). This summed to the insufficient system of sanctions¹⁰ and the impossibility of restoration makes, it hard for states to actually see the NPT as binding and enforceable. If no robust answer is given to incompliance, no precedent will be ever set, “encouraging” then the other non-nuclear states to breach the NPT provisions as well (Fernández, 2009). This will be showed throughout this paper, where the analysis will be focused on two *de iure* nuclear states (France and UK) and two *de facto* nuclear states (North Korea and Pakistan).

Given the treaty nature of the NPT, it can only prevent nuclear proliferation among its signatories, but it cannot assure universal non-proliferation. This is because of the principle of relativity of treaties: the NPT might be binding upon its signatories, but it is still a treaty, and as such, it does not have legal effects over third states such as Pakistan or North Korea, without their consent (Bagheri, 2018). Which leads us to our next point, where multilateralism as a pioneer method in stopping nuclear proliferation and the notable NPT’ status is getting more and more eroded. The “periodic” NPT revisions are showing a lack of compromise among its signatories and reviving the dilemma between the national interests versus the general interest. The blockade suffered by the NPT Review Conference in 2005 was highly motivated by the disequilibrium between disarmament (nuclear states)

¹⁰ For example, the violation of the obligation to cooperate for peaceful purposes, have never been sanctioned and no formal request of international responsibility has been issued (Fernández 2009, p. 331).

and non-proliferation (non-nuclear states) (Gamarra, 2006).

All in all, not a single state party to the NPT has developed the nuclear bomb¹¹ ergo the success of the NPT regarding non-proliferation is unquestionable, especially since the experts' predictions in 1968 pointed that by the end of the 1980s, more than twenty states would have become nuclear (Garrido, 2005). But we must not forget there are still some legal loopholes within the non-proliferation regime and some ambiguity within the NPT itself that hinders diplomacy and multilateralism as means to prevent nuclear proliferation (Gamarra, 2006).

2.3 PROPOSALS TO AMELIORATE ITS EFFECTIVENESS

Although the NPT has been without doubt the most successful legal treaty in non-proliferation matters (Garrido, 2010), it has suffered from some erosion over the past few years, and lost credibility within the international community (Bagheri, 2018). It is clear that the world is losing respect¹² for nuclear weapons, challenging the status quo in place for decades and the non-proliferation regime (Von Drehle, 2009). For that reason, we should take a different and more inclusive approach to it and try to reinforce it. Fault lines and double standards should be eliminated to make everybody feel included and party to this one same project: avoiding proliferation. In order to achieve this, it is essential to restore trust and to ensure that the general public interest overrides over certain nations' benefits (Gamarra, 2006). All must work towards the same direction and abstain from taking sides¹³ because the more actors in possession of nuclear weapons, the more probabilities of a nuclear catastrophe (Torres, 2020).

Authors like Robinson (2016) have suggested the universalization of both the IAEA Additional Protocol (that would allow the IAEA to monitor non-declared nuclear facilities too), and the Comprehensive Test Ban Treaty as ways to keep proliferation under control. As unlikely as (more) nuclear proliferation might seem due to the lack of political will and technological capability in the vast majority of states, the booming nuclear proliferation

¹¹ With the exception of North Korea, who withdrew from the treaty before carrying out its first nuclear test (Garrido, 2005).

¹² Courier international publishes in January 2021, Kim Jong-un's latest statements after the VIII Congress of the Workers' Party of Korea, where he reaffirms the condition of North Korea as a nuclear state and announces an undergoing program to build a nuclear submarine.

¹³ When India proliferated outside of the NPT framework, it was supported by the US, Europe and Russia; whereas Pakistan was safeguarded by China (and North Korea) (Torres, 2020).

for peaceful purposes has brought about the development of new reactors and fuel reprocessing techniques, that in turn can risk non-proliferation (for military purposes). Which is why, stronger regulations in nuclear commerce, greater transparency and the promotion of a lower international prestige for nuclear states have been proposed as means to restrain proliferation; as well as giving more importance to other legal documents such as the CTBT, the Anti-Ballistic Missile Treaty and the “eleven steps” presented by Japan (Fernández, 2009).

In short, there will not be a final solution until we prioritize this issue, attaching new policy procedures and drawing from past successes (Nye, 1992). If the current non-proliferation system is not invigorated and slightly altered, it will no longer be able to maintain international peace and stability (Fernández, 2009). A possible answer would be to countenance non-nuclear states to own enough defensive munitions as to protect themselves without considering garnering the nuclear bomb (Bagheri, 2018).

Finally, we can say the regime in place laid by the NPT have meant a great success and have significantly stopped military nuclear proliferation within the international community (Garrido, 2010), but *does the world want to continue to bet its survival on continued good fortune with a growing number of nuclear nations and adversaries globally?* (Kissinger et al., 2011). The breaches to the non-proliferation regime carried out by states like North Korea have eroded international confidence in the system and in the NPT, and it is extremely urgent the restoration of trust. Moreover, the de iure nuclear states, are obliged not only to disarmament under article 6 of the NPT, but also to downplay nuclear weapons’ importance within their respective foreign policies (Fernández, 2009). For that matter, a bearable solution or at least a mitigating one for the problem of proliferation would be eliminating the belief among the international community that the possession of nuclear armament is deserving of prestige (Sagan, 2011).

CHAPTER 3: UNITED KINGDOM

The UK is one of the five de iure nuclear states recognized as such by the NPT. This is because their first nuclear test took place before the 1st of January 1967 (Garrido, 2010). This means that their nuclear program is safeguarded by international law and their possession of nuclear weapons does not pose a threat a priori to international peace and security. Their only obligation under those terms is to contribute to disarmament as

established in article VI of the NPT.

Regarding the British role in the non-proliferation regime, the UK can be considered as a pioneer in the NPT project together with Russia and the US, having signed it in 1968 - when it was open for signature- and has been contributing to the creation of the current non-proliferation system since then. However, some believe their conduct has also nurtured the implementation of double standards within the international community regarding disarmament (Bagheri, 2018).

3.1 ACQUISITION

The British nuclear program started in the 1940s in the context of World War II. The foundations on how to build the atomic bomb were laid by scientists Otto Frisch and Fritz Peierls. Shortly, some British scientists were sent to the US to work in the Manhattan Project¹⁴. After the war and with the implementation of the Atomic Energy Act¹⁵, the UK decided to strive for its own military oriented nuclear program. The participation of British scientists in the Manhattan Project highly facilitated the success of the UK's indigenous program (NTI, 2015).

Their first nuclear test took place in October 1952 near the coast of Australia and was nicknamed "Hurricane" (NTI, 2015). This initial weapon was a 10-kiloton plutonium fission bomb, the "Blue Danube", and would become the cornerstone of their primitive strategy of deterrence. It was hauled by the V bombers of the Royal Air Force (House of Commons, 2006).

In relation to the reasons why the British decided to start their own nuclear program, we can say that the main trigger was the Soviet blockade of Berlin after World War II. Given the distrust of the British diplomacy in the international community (including the US' capability to defend the NATO allies), the logic of realism that highlights the anarchic nature of the international system was applied. In this sense, they considered that each state had to survive individually and had to develop their own security capabilities to the extent

¹⁴ It was a massive collaboration between the US and the UK to obtain the atomic bomb during World War II (Atomic Heritage Foundation, 2017).

¹⁵ This legislative piece passed in 1954, regulates the "*development, utilization and disposal of US nuclear materials and facilities*" as well as the American cooperation with other states on the matter (NTI Glossary)

possible. That combined with the decrease in the British economic and military capacities at the end of World War II, made the UK envision nuclear weaponry as a way to keep their international status (Villalba, 1996).

Nevertheless, in light of the USSR's rise, the UK saw no other option than aligning with the US to keep the balance of power, because no group of European states could equal the Soviet power at the time. This alliance would lead to a British dependence on America over time since the British nuclear force has always been conceived as imminently linked to the US and NATO (Villalba, 1996).

3.2 DEVELOPMENT

In 1957, a thermonuclear device was tested and started operating in 1961. Both in the 1950s and 1960s, the UK would permanently be involved in nuclear joint projects with the US. One of the outcomes of this cooperation was the Polaris system which comprised four Vanguard submarines¹⁶ or SSBN, further explained in the next section (House of Commons, 2006).

In 1980, the decision to buy Trident -a type of missile- from the US, was made after having worked a lot on its concept and design. In the late 1980s, the British nuclear deterrence strategy would be divided into three parts: strategic, sub-strategic and tactical. Regarding the strategic part, the Polaris Chevaline (a subsequent version of the Polaris) played a key role, enabling the British to reach the opponent' soil. Secondly, the sub-strategic area was characterized by the so-called WE 177 free-fall bomb and allowed them to attack individual targets; and it was conceived to transmit messages pertaining to political, cautionary or demonstrative orders. Thirdly, the tactical role was carried out by a softer WE 177 and was aimed at striking adversary troops on the battleground (House of Commons, 2006).

In 1992, the first of four Royal Navy Vanguard-class ballistic missile submarines carrying Trident D5 missiles was launched. This type of submarines was originally designed to last for 25 years and required a meticulous system of maintenance, although their life has been extended. In 1998 there was an important decline in the size and readiness of the British

¹⁶ The Vanguards, also known as SSBNs, are a type of submarines doubly nuclear. They haul ballistic missiles with nuclear warheads (Jack, 2016).

nuclear forces as their Strategic Defence Review (1998) set out and has been decreasing since then (Secretary of State for Defence & Secretary of State for Foreign and Commonwealth Affairs, 2006).

At present, UK's nuclear forces are fundamentally sea-based. These include the four aforementioned Vanguard submarines -currently undergoing a process of modernization- which carry the 16 Trident II D-5 -a type of missile-, giving rise to the so-called *submarine-launched ballistic missiles or SLBM* (NTI 2015, par. 6). These submarines constantly monitor at sea and are the core of the British nuclear deterrence strategy -CASD-¹⁷ (Finger, 2012).

In relation to the evolution of the political support of the British nuclear program, it is interesting to mention that, although there is no longer a burning discussion, this has not always been the case¹⁸. Now, there is a consensus regarding the nuclear deterrence strategy to which the UK adheres and the necessity to preserve it, given the current security threats such as emerging nuclear powers or state-sponsored terrorism. (Secretary of State for Defence & Secretary of State for Foreign and Commonwealth Affairs, 2006).

3.3. POSITION WITHIN THE UN SYSTEM

The UK is one of the five permanent members of the UNSC thus it enjoys the right to veto in significant decisions within the UNSC. As such, it also has a special responsibility in protecting international peace and security (because of its possession of nuclear weapons). As a matter of fact, it is entitled to the protection of non-nuclear states party to the NPT or even of other *de iure* nuclear states if hit by a nuclear attack. Also, it is obliged to immediately notify the UNSC if cognizance about a nuclear strike and to initiate the correspondent procedure to punish the nuclear defaulting state and to compensate the victims as S/RES 984 (1995) stipulates.

It is also necessary clarify that the UK, as a permanent member, has a saying on every single one of the UNSC Resolutions. Therefore, we can know for a fact their unconditional

¹⁷ It stands for Continuous patrolling At-Sea Deterrence (NTI, 2015)

¹⁸ During the Cold War there were two points of view with opposite conceptions of the international system: a) the orthodox perspective based on realism and supporting nuclear weapons and b) the alternative perspective based on idealism and defending an elimination of nuclear armament (Villalba, 1996).

support to the NPT and respect for the non-proliferation regime, given its stand on UNSC Resolutions such as S/RES/1887 (2009) or S/RES/2310 (2016)¹⁹. In those documents, all nation states around the world were encouraged to sign the NPT and to put in place the so-called International Monitoring System (IMS) as well as the International Data Centre (IDC) to facilitate nuclear programs' monitoring. This British special status within the UN system is undoubtedly due to its de iure nuclear state rank, i.e because international law recognizes and endorses their ownership of nuclear armament.

However, and in spite of its full favorable vote to sanction defaulting states; comparatively, the British stance in non-proliferation has not been as proactive as others' such as the French one. UK's interventions have rather been characterized by moderation and diplomatic attitudes, leaning towards negotiations such as the Six Party Talks. They have not issued any innovative proposal beyond expressing their concern about the implications of a higher degree of diversification in the nuclear fuel cycle (Gamarra, 2006).

3.4 INTERNATIONAL ALIGNMENT

The UK's proximity to the US has always been significant when it comes to their nuclear capabilities and they have participated in many projects together. For instance, in 1958 the "*Mutual Agreement for Co-operation on the Uses of Atomic Energy for Mutual Defence Purposes*" was signed and became the cornerstone of the British nuclear agenda. This accord, not only did it allow to share technical knowledge between these two states, but it also enabled the UK to draw on the American warhead designs. During that decade, the UK and the US also engaged in other projects together such as the Skybolt air-launched nuclear missile²⁰ (House of Commons, 2006).

Moreover, in the 1960s (when they both obtained the status of de iure nuclear states), the Polaris system developed by the UK would not have been successful without the American assistance in drafting the nuclear propulsion system. In fact, the missiles were bought from the US, just like the missiles for the Trident II D5. In the 1980s, this closeness continued and in the final hours of the Cold War, British-American dual-key system was put in place. Thanks to this arrangement, *Lance* missiles could be deployed using US tactical warheads (House of Commons, 2006).

¹⁹ All members of the UNSC at the time voted in favor except for Egypt.

²⁰ Although it would be cancelled by President Kennedy in the 60s (House of Commons, 2006).

Nowadays and in the context of the modernization of the British nuclear program, a new American-designed warhead -the W93- will be again used as a model to develop a newly Britain warhead (McKeon, 2021).

3.5 DENUCLEARIZATION

In the context of a (limited) nuclear world, both France and UK have certainly bearded in mind what Winston Churchill once said: *“Be careful above all things not to let go of the atomic weapon until you are sure and more than sure that other means of preserving peace are in your hands”* (cited by Thatcher, 1987). More than half a decade has gone by since those words were first pronounced, yet they are more current than ever.

First of all, we must say that the UK is the de iure nuclear state with the smallest arsenal²¹. This indicator is useful to prove that their (alleged) true and only interest in keeping nuclear weapons is to ensure national security (NTI, 2015). On the other hand, the British Government has always made clear that they would not eliminate their nuclear arsenal without a multilateral agreement globally settling on it (Secretary of State for Defence & Secretary of State for Foreign and Commonwealth Affairs, 2006).

Secondly, the old certainties enjoyed by the nuclear powers during the Cold War no longer exist, hampering the idea of disarmament even more due to the growing unpredictability of the international (nuclear) scene. At present, the UK cannot be assured that a nuclear threat will not affect their vital interests in the long run, especially after seeing the nuclearization of countries like North Korea (Secretary of State for Defence & Secretary of State for Foreign and Commonwealth Affairs, 2006). That is why the UK conceives their nuclear armament as crucial to maintain their national security and to continue deterring blackmail and acts of aggression (Defence White Paper, 2006).

In relation to the British disarmament commitments, it is clear that they are obliged to reduce their nuclear arsenal under article VI of the NPT as their de iure nuclear status requires. In this sense, they have complied and continuously been decreasing its arsenal since the 1970s -when they possessed 520 warheads-; as well as decommissioned fissile

²¹ In fact, its stockpile, comprising about 185 warheads only accounts for 1.4% of the worldwide total (House of Commons, 2006).

production facilities since 1995 (NTI, 2015). However, the British promise of lowering the number of warheads below 180 by 2025 has recently been broken. The UK Government has announced a 44% increase from that target, having set the new goal at 260 warheads. This shift in policy will most likely not have a positive impact on the 2021 NPT Review Conference and will alter the global perception of the UK's loyalty to the non-proliferation regime. Moreover, the fact that they are currently undergoing a process of nuclear modernization to replenish its four Vanguard class SSDNs, warheads and delivery systems does not help either in trusting the British nuclear compromises (McKeon, 2021).

That said, even if the international community questions the British choice, not a single state will dare recriminating them their ownership of nuclear weaponry because they are covered by the NPT. This proves that the only legal way to possess nuclear armament is by obtaining the NPT endorsement.

3.6 BRIEF CONCLUSION

The UK made the decision to acquire the bomb after World War II, after seeing the USSR's empowerment and they were assisted by the US (Villalba, 1996). Since their first nuclear test took place in 1952 and ergo before 1967, they are considered a *de iure* nuclear state and its nuclear arsenal is safeguarded by the NPT (Garrido, 2010).

Over the decades, they have been committed to their disarmament obligations and continuously been reducing their nuclear armament until recently, when they have negatively altered their disarmament process (McKeon, 2021). This evinces the asymmetries within the non-proliferation regime, since no country has felt like this change poses a threat to international peace and security, contrary to what they would think if *de facto* nuclear states did it. In fact, they believe the so-called Global Zero is very unlikely to happen, seeing that they would only agree to it under a universal accord (Secretary of State for Defence & Secretary of State for Foreign and Commonwealth Affairs, 2006). Regarding their efforts to stop proliferation, their stance has been more moderate than that of other states and has mostly supported diplomacy, although it has voted in favor of sanctioning uncomplying states (Gamarra, 2006).

CHAPTER 4: FRANCE

France became a nuclear power in 1960 after successfully conducting a nuclear test in the Sahara Desert (Mongin, 2011). However, it did not adhere to the NPT until 1992, presenting itself as the last and fifth de iure nuclear-weapon state (Hathaway, 2020). It inexplicably declined to join the treaty before that date yet informally compromised to respect the provisions of the covenant (Villalba, 1996).

This chapter will be centered on the “French” development of France’s nuclear program as well as their unconditional support of the non-proliferation regime. This includes a robust international response against defaulting states and an effort in disarmament, despite their status of third country with the largest nuclear arsenal (Atomic Heritage Foundation, 2017).

4.1 ACQUISITION

The French interest in nuclear energy started before World War II when the Paris Group, composed of four scientists from *Collège de France*, contributed to the finding of the chain reaction. They believed fission would take place if two neutrons were freed in a uranium nucleus. This would mostly be used to produce energy during the war and would be directed to meet their energetic needs (Mongin, 2011).

Thereafter however, their nuclear energy interest became a security concern. As such, this provoked the evolution of their civil nuclear program towards a weapon one, following the invasion of France and was encouraged by General Charles de Gaulle²². At the time, a patriotic sentiment had arisen within the French society, evincing the necessity to develop their own capacity in terms of defense and national security. For that reason, France saw no alternative but to acquire their own nuclear arsenal in an attempt to avoid future humiliations as the one caused by the Nazi onslaught and advocated for a “French defense of France” (Villalba 1996, p. 62). Obtaining nukes would mean wielding the so-called “force de frappe”²³, whose main objective was to safeguard the integrity of the French territory. This new capability would be based on the possession of nuclear armament and

²² He was the first person to announce the French command of nuclear weapons to the French People and the ultimate authority for the use of nuclear weapons during his mandate (Villalba, 1996).

²³ It is a strike force so genuinely French and is solely managed by the highest authority of the French Republic. It makes sense within the context of deterrence.

the capacity to deploy it at any time in any place if necessary, deterring the rest of the world from attacking French soil. This was expected to make them once and for all impervious to foreign attacks and altered their foreign policy (Villalba, 1996).

In relation to institutional development, the Commissariat of Atomic Energy (CEA) was created in 1945 and would focus on researching as to use atomic energy both scientifically and in national defense matters. From the minute this entity started functioning, it would directly report to the President. In 1949, their first plutonium extraction plant was established and a second one would be opened in 1952. Throughout the 1950s, they would take their first aforementioned steps towards a nuclear weapons program. In 1957, they opened a testing site in the Sahara Desert where they would in 1960, carry out their first nuclear test nicknamed *Gerboise Bleue*. This explosion was four times stronger than the Hiroshima bomb and would turn France into the fourth nuclear power (Mongin, 2011).

4.2 DEVELOPMENT

Concerning France's nuclear tests, we must say they would continue taking place in Algeria until 1966 and would expose this zone to high doses of radioactivity. After that date, the French Republic would change the location of their nuclear explosions to the French Polynesia where more than 190 tests were conducted. In this case, the inhabitants also suffered the side effects of nuclear radiation resulting in a rise in cancer illness. In the 1990s, and after a moratorium, the nuclear tests continued in the French Polynesia, although underground. This led to numerous international protests that opposed Chirac's decision, particularly because these nuclear tests coincided with the negotiation of the Comprehensive Nuclear Test Ban Treaty (CTBT)²⁴. In 1998 France ended these trials in the French Polynesia and adhered to the CTBT (Mongin, 2011).

France's current nuclear arsenal comprises around 300 warheads, setting itself up as the third country with the largest nuclear arsenal in the world (Atomic Heritage Foundation, 2017). Moreover, they can be deployed by means of their submarine-launched ballistic missiles (SLBMs), fighter aircraft and the four *Le Triomphant* SSBN. In connection to the safety of their warheads, the French Republic has signed the Lancaster Agreement with the

²⁴ The CTBT banned all nuclear tests, including the ones with civilian and military ends (Atomic Heritage Foundation, 2017).

UK, to jointly test the safety of their warheads. For that matter, simulation technology allows them to verify it, since nuclear tests are not permitted (NTI, 2016).

Their deterrence system, similar to the British one, is focused on one SSBN -at the least- permanently deployed at sea and three vessels in operation. Each submarine includes 16 missiles -M45 or M51- indigenously built that hauls Multiple Independently Targetable Reentry Vehicles -MIRV-. However, their alleged “principle of strict sufficiency” (Finger 2012, p. 63) could be refuted by the UK, since the latter has nearly half the number of warheads available (Finger, 2012).

Contrary to what the NPT and the French diplomacy seems to defend regarding disarmament, it is interesting that France has been renewing its arsenal, particularly its missiles, evolving from M45 SLBMs to M51 SLBMs. In fact, the Navy’s most modern submarine -*Le Terrible*-, which began operating in 2010, already carries M51. Similarly, their air-based force, including four fighter aircraft combat teams, also underwent a process of modernization and substituted the old air-launched cruise missiles -ALCM- for upgraded ones. This advances in sea and air were given another boost by the Military Programming Law in 2013. In point of fact, in 2015, 180 billion were budgeted for that matter. Nowadays, France proudly contemplates its plans for vessels’ upgrades scheduled for 2035 and beyond (NTI, 2016). These remodeling plans, on the one hand, may seem necessary to (only) maintain its nuclear arsenal, but on the other hand, they seem to hinder the disarmament obligations acquired through the NPT (Mongin, 2011).

4.3 POSITION WITHIN THE UN SYSTEM

France, as a permanent member of the UNSC, has always bearded in mind its obligations in the maintenance of peace and security in the world. For that matter, they have always voted in favor of imposing sanctions on defaulting states²⁵ like North Korea, whose behavior has been labelled by French diplomacy as “*irresponsible, unjustifiable and destabilizing*” (Guitton 2016, p. 10).

As opposed to the other four *de iure* nuclear states, France has formulated some measures to make the non-proliferation regime stronger and has proposed a universalization of the

²⁵ This can be verified the UN Index to Proceeding of the Security Council (UN, 2007) (UN, 2010) (UN, 2017) (UN, 2021), etc.

current IAEA verification system. Furthermore, it has supported a hardening of the undergoing multilateral system including suspending nuclear cooperation in cases of suspicion of violations of the regime; and facilitating the access to non-sensitive nuclear technologies to compliant states. In France's opinion, the withdrawal from the NPT should also be followed by a debate where the state in question should explain their "supreme national interest" that justifies the abandonment of the treaty (Gamarra 2006, p. 141).

The French Republic is perfectly aware of the uncertain and alarming international environment when it comes to nuclear weapons and disarmament. That is why they advocate for a "*coherent and comprehensive approach in the issues of non-proliferation, arms control and disarmament*" (Guitton 2016, p. 9). Non-proliferation is a very sensitive topic that should be treated as such and that can only happen if the objectives of the non-proliferation regime in place are universally understood. To that end, not only do they stand up for a solid agenda, but also, they believe this problem cannot be solved without a realistic plan. This includes showing an unconditional respect for the NPT and its credibility, defending its three backbones, in spite of the asymmetries. Furthermore, they believe a safer world can only be attained if all national and regional interests are taken into account when tackling the issue, because no lasting solution will be found if reality is ignored or denied (Guitton, 2016).

4.4 INTERNATIONAL ALIGNMENT

Concerning the international alignment in the development of the French nuclear program, it is interesting to mention the relationship between NATO and France. France, as opposed to the UK, has always conceived its nuclear weaponry in a more autonomous manner, instead of connected to NATO or the US. The French nuclear armament was developed in order not to accept an international strategic dependence on any state, especially on the US. Thus, it sought to be able to enjoy a completely national defense of France. On the other hand, we can also say that this French detachment from the other nuclear powers was influenced by the British-American treatment received in the 1950s: they jointly compromised (1957) not to transfer any nuclear information to France -and West Germany-. That is why, France, throughout the development of their nuclear program made a huge effort to obtain the nuclear bomb on its own, without foreign help, as the UK did. In this sense, that explains why France became a nuclear state later than the UK (Villalba, 1996).

In the 1960s, the US and UK were only willing to share information with France, within the framework of NATO. Therefore, it is not surprising that de Gaulle's return to power entailed an anti-NATO attitude. For instance, in 1964, when de Gaulle announced their first operational nuclear air unit, he clarified that there will not be any information exchange with the US nor NATO. Later, in 1966, France would withdraw from NATO (Mongin, 2011) and would expel all foreign military elements from French territory. This rather radical position would afterwards be revised (Villalba, 1996).

4.5 DENUCLEARIZATION

In relation to the disarmament efforts made by France, it is clear that they have not been as cooperating as the UK in this matter -until recently²⁶-. In 1996, Chirac announced an important reduction in the French arsenal, taking measures such as the dismantling of the totality of its land-based nuclear missiles or the removal of the Mirage IVP bombers. In 2008, they also compromised to decreasing their nuclear forces in one third, ergo they would not possess more than 300 warheads in total; objective that would be reached in 2009 when France owned slightly less than 300 warheads (Finger, 2012).

Nevertheless, over the past few years, their attitude has changed. For instance, whereas the Partial Nuclear Test Ban Treaty (PTBT) (1963) was never signed by France, the CTBT²⁷ was rapidly ratified in 1998 (Thunborg, 1998). Moreover, they are expected to having put an end to their ability to manufacture nuclear-weapon materials by 2035, and they have compromised to continuing the reduction of their nuclear arsenal in order to inspire the rest of the nuclear states (Finger, 2012).

As a matter of fact, the French Permanent Representative to the Conference on Disarmament in 2016, expressed their firm abidance to nuclear disarmament and transparency in relation to their nuclear arsenal. It is undoubtable that France has been adopting specific disarmament measures in view of the "principle of strict sufficiency" currently followed by the French Government, in which the deterrence strategy is rigorously defensive²⁸ -although they have not reduced their number of warheads in more

²⁶ Since the UK has announced their intent to increase by 44% their agreed objective to reduce nuclear warheads (McKeon, 2021).

²⁷ It strictly prohibits any nuclear test or explosion anywhere in the world. However, it never entered into force (Thunborg, 1998).

²⁸ In this regard, the French Government has confirmed their willingness to use their nuclear weapons to fight

than ten years-. And what is more, they have made clear their intention to agree on a joint and realistic disarmament agenda that fits and benefits all nation states -both nuclear and non-nuclear- and complies with the NPT obligations. However, we must demystify and say that all of the above does not imply under any circumstances a complete denuclearization nor intention to reach the so-called Global Zero. In words of Alice Guitton (2016, p. 12) “*we would be deluding ourselves if we believed that such a treaty²⁹, designed without the nuclear-weapon possessing States, could have the slightest concrete impact, particularly on the reduction of arsenals*”.

4.6 BRIEF CONCLUSION

France acquired the nuclear bomb after World War II in an attempt to be independent from the US and to avoid episodes like the ones lived with the Nazis. In a nutshell, they sought to develop a French defense of France (Villalba, 1996). In the last decade, they have been undergoing a modernization process of their nuclear arsenal that may question their faithfulness in the disarmament provisions of the NPT. This is because France’s nuclear weaponry is regarded as a “nation’s life insurance policy”, meaning that they will never give up the totality of their nuclear arsenal (Finger, 2012).

Moreover, their stand within the UN system has been tougher than that of other de iure nuclear states, being always in favor of sanctioning uncompliant countries and proposing new measures to strengthen the non-proliferation regime (Gamarra, 2006). However, the fact that they have not reduced their nuclear warheads for some years now, might endanger their alleged compromise with the NPT.

CHAPTER 5: NORTH KOREA

This chapter will be focused on North Korea’s illegal nuclear proliferation and the consequences it has brought with it, including several UNSC Resolutions sanctioning. North Korea has been considered as a de facto nuclear state since September 2017, once their sixth nuclear test was conducted successfully. Thus, we can say it is now globally regarded as capable of deterring military interventions in its territory (Garrido, 2019).

terrorism if necessary (Atomic Heritage Foundation, 2017).

²⁹ Referring to a treaty banning all nuclear weapons, because with their understanding, that would do nothing but weaken the non-proliferation regime (Guitton, 2016).

Regarding its role in the non-proliferation regime, North Korea adhered to the NPT in 1985 (in exchange for Soviet help in developing Light Water Reactor technology³⁰); although, they would withdraw and expel the Atomic Energy Agency³¹ (from now on IAEA) inspectors in 2003, after the American suspension of heavy oil consignments (Garrido, 2019). The fact that North Korea withdrew from the NPT prior to becoming a de facto nuclear state, granted the NPT a symbolic value to the international community's eyes (Fernández, 2009); but it also evinced the legal vacuums of the non-proliferation regime. Their nuclear and ballistic missile programs have become the greatest challenge to the non-proliferation regime of the century (Garrido, 2019), not only because of its illegality, but also due to the possibility of knowledge transmission to other international actors³² (Abad, 2012).

5.1 ACQUISITION

The North Korean nuclear program was launched long before it is thought: its precedent dates back to 1947 when the Soviets fostered uranium explorations in the Korean Peninsula. As a matter of fact, its first nuclear reactor would be provided by the USSR (Abad & Priego, 2008). In 1952, the Kim Regime created the Atomic Energy Research Institute, but the nuclear work would not start until the signature of a cooperative agreement with the Soviets. This joint project would enable North Korea to send scientists to the Soviet Union to learn about nuclear energy. Shortly, a new pact would ensure the USSR's support to open a nuclear research facility in Yongbyon.

To sum up, throughout the 1960s, the USSR would frequently assist North Korea in the development of their nuclear program, although for peaceful purposes; since it would not be until the end of the 1960s when North Korea enlarged its institutions as for the nuclear program to comprise military uses too (NTI, 2018). This makes us wonder until what point is the international community ready to comply with the non-proliferation regime. This

³⁰ According to the definition coined by James Martin Center for Nonproliferation Studies, this term is utilized to define "reactors using ordinary water, where the hydrogen is hydrogen -1, as a coolant and moderator, including boiling water reactors (BWRs) and pressurized water reactors (PWRs), the most common types used in the United States" (NTI Glossary).

³¹ It is an international organization integrated within the UN although it operates autonomously. Its main goal is to ensure that nuclear materials and technology are used in a peaceful way (NTI Glossary).

³² For instance, the North Korean Regime has helped Iran in its weaponization process as well as Pakistan (Bardají & Portero, 2007).

Soviet generosity in helping North Korea develop their nuclear program is suspicious to say the least and raises the possibility of (de iure) nuclear states openly allowing breaches of the NPT.

In relation to the motivations and behavior of the Regime concerning nuclear weaponry, we must bear in mind two considerations. First, having their very own nuclear and ballistic missile program allows them to trick the international community into granting them concessions and buying them some time to consolidate their nuclear discoveries. And second, all actions taken by the Kim Regime are not altruist, but actually aimed at fulfilling national goals and preventing an international intervention.

Indeed, the driving forces of their nuclear program are not aleatory but directed to ensure the following elements:

- a) the survival of the Kim dynasty (politically),
- b) a higher economic growth (economically) and
- c) the reunification of the Korean Peninsula (strategically) (Garrido 2019).

In a nutshell, their intent to obtain the nuclear bomb has been determined by their ambition to boost national pride and to secure the national territory³³ (Abad & Priego, 2008).

This explains why North Korea's standpoint has been countless times labeled as manipulative and opportunist, especially after their performance in international negotiations relating to the non-proliferation regime's infringements (Abad, 2003). Moreover, it shows that Kim Jong-un's way of leading the country's foreign policy could not be more rational, contrary to the "crazy" and "suicidal" attitude perceived by the West (Garrido 2019, p. 162).

5.2 DEVELOPMENT

In the 1970s, another approach between the Kim Regime and the USSR resulted in North Korea obtaining several experimental reactors monitored by the IAEA and would enable them to produce plutonium for nuclear weaponry and Light Water Reactors. In 1984, hardly a couple of years after their adherence to the NPT, they had put in place their very own nuclear program. Soon, unknown reprocessing plants were found, increasing

³³ It is likely that the Korean War and the fact that their contender was in possession of nuclear weaponry might have pushed their aspirations (Abad & Priego, 2008).

international worry about these not having merely a civil purpose (Abad & Priego, 2018). In relation to this, it is important to highlight that North Korea would not sign the Safeguards Agreement which allowed the IAEA to surveil their nuclear facilities until 1992 and was a result of the (American) denuclearization of the Korean Peninsula (Garrido, 2019). Nevertheless, this fact would not change much, since many data continued to be hidden from the IAEA inspectors like the amount of plutonium they were reprocessing (Abad & Priego, 2008).

In 1993, after North Korea's rejection to certain IAEA's inspections and the Agency's subsequent request to the UNSC to authorize an ad hoc investigation, the Regime made public their intention to withdraw from the NPT. The tensions were distended thanks to the so-called Agreed Framework signed between the US and North Korea and included provisions for the Kim Regime to actively work towards denuclearization of the Peninsula as well as to allow IAEA control again. In exchange, the US would help in manufacturing the North Korean LWRs and would annually supply heavy oil (Garrido, 2019). Once again, a questionable permissiveness in regard to the non-proliferation regime compliance arises and makes us reflect upon the fact that the future of civilization depends on the sanity of nuclear powers (Goldschmidt cited by Garrido in 2011 a).

Even though the Six Party Talks³⁴ have often been portrayed as the solution to the 1993 nuclear crisis, it only left matters unresolved: the amount of plutonium was still unknown, and they were about to obtain their awaited Light Water reactors. In 1996, the confirmation of the existence of a new clandestine nuclear facility escalated tensions, especially with the US. At this point, North Korea stopped complying with the Six-Party Talks and would in 2002 expel the IAEA inspector and withdraw in 2003 from the NPT on the grounds of an American preventive attack in their soil (Abad & Priego, 2008). The tensions reached its peak in 2006 with North Korea's first nuclear test (NTI, 2018). The US' efforts to return North Korea to the legal fold over the decades (particularly during the Bush Doctrine) have resulted to be in vain (Bustelo, 2003), reflecting what a failure the Six-Party Talks were (Bustelo, 2006); and ultimately proved the subsistence of a "*vicious cycle of no return*" on the matter (Gamarra 2006, p. 163), where the international community does not seem to be ready to prevent nuclear proliferation.

³⁴ During these negotiations that took place from 2003 and 2009, the following countries were party: North Korea, South Korea, Japan, United States, China and Russia.

5.3 POSITION WITHIN THE UN SYSTEM

Over the years, many international regulations have been passed to punish North Korea for their unlawful behavior, but none has achieved its main goal: the end of their nuclear program. In fact, North Korea has often been the most benefited country in international negotiations and the one that has not deviated from their original intent; proving who the relentless is (Gamarra 2006). Moreover, prior to their de facto nuclear state status, they were able to nuclearize themselves with no consequences, no undesired inspections and no sanctions despite having violated the NPT before its withdrawal (Fernández, 2009).

A large number of the UN Security Council Resolutions³⁵ have been adopted in relation to North Korea's violation of the non-proliferation regime but without success. This betrays its position within the international community, particularly within the UN system. The first UNSC Resolution including sanctions against North Korea due to illegal nuclear proliferation -and having warned them in previous years- was Resolution 1718 (2006). This Resolution was adopted unanimously as the following Chart shows and it was a consequence of their first nuclear test and after having effectively withdrawn from the NPT in 2003 (Garrido, 2019). The fact that all members of the UNSC, including the five permanent ones -also possessors of the nuclear bomb- illustrates how dangerous the North Korean proliferation was perceived as by the whole international community.

S/RES/-	1712	1713	1714	1715	1716	1717	1718	1719	1720	1721	1722	1723	1724	1725	1726
Argentina	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
China	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Congo	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Denmark	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
France	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ghana	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Greece	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Japan	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Peru	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Qatar	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Russian Federation	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Slovakia	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
United Kingdom	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
United Rep of Tanzania	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
United States	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Figure 1

³⁵ RES/825 (1993), RES/1874 (2009), RES/2094 (2013), RES/2270 (2016), RES/2321 (2016), RES/2365 (2017), RES/2371 (2017), RES/2375 (2017), RES/2397 (2017) or RES/2569 (2021), among others.

Index to Proceedings of the Security Council: sixty-first year – 2006.

Y: In favor of the resolution, in this case, sanctioning North Korea

N: Against the resolution

A: Abstention

In 2009, after their second nuclear explosion, the sanctions imposed by Resolution 1718 (2006) were hardened by Resolution 1874 (2009) which was once again adopted unanimously (UN 2010, p. 283). North Korea justified this second trial as a way of protecting their national security from a possible American attack. Their third test would also be unanimously condemned by the UNSC in Resolution 2084 (2013) (Garrido, 2019).

In 2016, two nuclear tests were conducted and provoked a strong response in the UNSC materializing in Resolutions 2270 (2016) and 2321 (2016) respectively. They affected negatively North Korea's commerce and finances and were agreed by China in spite of its severity. This was surprising because China has always adopted a laxer stand regarding North Korea's nuclear program. However, according to some experts, the trade between these two countries not only did not decrease but it intensified. This kind of "extra-official" discrepancies concerning the handling of the nuclear proliferation in the Asian continent between the three main *de iure* nuclear powers -Russia, China and the US-, actually maximizes the negotiating capacity of the non-compliant ones (Pedro 2009, p. 12), hindering the obtaining of a joint solution. Even if China, the main ally of the Kim Regime, publicly acknowledges its rejection to the North Korean nuclear program -which it has- (Garrido, 2019), those statements do not have such a great impact without a strict application of the widely agreed economic sanctions³⁶.

As clear as it is that North Korea represents a great menace to the non-proliferation regime (Ortega, 2016), the different interests involved in Asia have encouraged disagreements among the *de iure* nuclear states. For example, the American deployment of a missile defense system in South Korea in 2016 was not welcomed by China and Russia who perceived it as a possible source of (in)stability in the region (Garrido, 2019). One element on which they all agree is that the more nuclear weapons in a region, the higher the risk of a nuclear conflict; with the unfavorable consequences it would bring about both politically and economically as well as the possible domino effect, encouraging states like Japan to

³⁶ The Chinese Government warned the international community in 2016 about the adverse effects of blindly relying on sanctions and pressure against North Korea to resolve the crisis (Lee, 2016).

engage in nuclear programs (Abad, 2003).

Eventually, in 2017, North Korea became a de facto nuclear state after successfully carrying out its sixth nuclear test on the 3rd of September (Garrido, 2019). On this occasion, the UNSC followed the same strategy as before, and imposed economic penalties to deter North Korean authorities from continuing their nuclear and ballistic programs. According to the Resolution, the oil exports to this country would continue being limited and surveillance would be necessary to avoid non-compliance. Moreover, the UN Members were forbidden to buy by any means North Korean products and were required to expel (North Korean) workers from their territory if their presence represented a source of foreign exchange. This Resolution also called for the re-engaging in the Six Party Talks, its return to the NPT framework and a healthy IAEA monitoring (UN, 2017). The latest Resolution on this issue was adopted by the UNSC on the 26th of March 2021 (Resolution 2569) and extended until the 30th of April 2022 the command of the Panel of Experts that is currently monitoring them.

Finally, the UN has not been the only one imposing sanctions on North Korea, also other organizations like the EU has -starting in 2006-. In this sense, measures such as arms embargos, freezing of assets and travel bans have been implemented as well as the prohibition of certain (suspicious) imports and exports through the Common Position 2006/795/CFSP and the Regulation (EC) 329/2007. Given that framework, consecutive steps have been taken towards a more specific control system³⁷ (Consejo Europeo & Consejo de la UE).

In conclusion, throughout the whole process of nuclearization, we can see a trend pointing out that as harmful as economic sanctions might have been for the North Korean economy, they have not been sufficient, since the Kim dynasty has continued violating the non-proliferation regime. Moreover, we can say that the North Korean conduct is highly dependent on the fruitful or failed interactions with the US at the time, having oftentimes requested an (exclusive) bilateral encounter (Abad, 2003).

³⁷ For instance, in 2012, a ban on gold, precious metals and diamonds commerce was introduced, as well as the prohibition of providing currency to the North Korean Central Bank; or in 2013 the (permitted) refusal of taking off, landing, overflying or entry of North Korean vessels and airplanes if suspicion (Consejo Europeo & Consejo de la Unión Europea).

5.4 INTERNATIONAL ALIGNMENT

North Korea's interest in developing a nuclear program was nurtured by the Soviet explorations in the Korean Peninsula in the 1940s, so did their initial assistance. Even though Moscow and Pyongyang signed some agreements on the matter, some of which would also include China (Garrido, 2019), the eventual transfer of nuclear technology would be denied by both of them (Abad & Priego, 2008)

With this view, North Korea realized the necessity to find a new partner. In this sense, the exchanges between North Korea and Pakistan in the development of their respective nuclear and ballistic missiles programs have not gone unnoticed, and in spite of their unlike foreign relations. The first rapprochement between North Korea and Pakistan took place in 1971 in the context of the Indo-Pakistani War and consisted in the North Korean supply of conventional armament. Their relation would intensify from the end of the 1980s onwards. This was due to their shared necessity of currency and their complementary interests in defense matters: whereas Pakistan required missile technology, North Korea was missing on uranium enrichment knowledge and centrifuges -as means to develop their own nuclear weaponry- (Abad & Priego, 2008).

This international cooperation would continue with the tripartite Agreement signed by China, North Korea and Pakistan, which entailed collaboration in technical matters. As a result, North Korea would receive gas centrifuges schemes -put in place by Dr Khan centrifuge network- in exchange for sending disassembled missiles to Pakistan. In 1996, Islamabad transferred the remaining technology to the Kim Regime in order to settle their economic debt and there were several exchanges of experts in their respective fields of study (Abad & Priego, 2008).

Therefore, it is clear that assistance was provided by Pakistan³⁸ to North Korea and that it played a key role in the development of the uranium enrichment program (Abad & Priego, 2008). However, the majority of the North Korean nuclear program was developed with no meaningful foreign help (NTI, 2018).

³⁸ This trade of information has been publicly acknowledged by the very own Dr Khan (Abad & Priego, 2008).

5.5 DENUCLEARIZATION

Concerning the possibilities of denuclearization, there are three indicatives that point to the unlikelihood of it happening in the middle term:

- 1st) the advanced level of development in their nuclear and ballistic program and the large exertion made by the regime and its population to achieve it,
- 2nd) the historic failed negotiations; and
- 3rd) the absence of a waybill for future negotiations (Garrido 2019, p. 130).

Although the Six Party Talks were revived in 2018 and the Kim Regime has confirmed their commitment to the denuclearization of the Peninsula, very small tangible progress has occurred if not none since then (Garrido, 2019).

5.6 BRIEF CONCLUSION

North Korea became a de facto nuclear state in 2017 after successfully conducting its sixth nuclear test. However, they are not safeguarded by the NPT for two reasons: first, they did not carry out a nuclear test before 1967, being then in possession of nuclear weapons illegally; and second, they withdrew from the treaty in 2003 (Garrido, 2019). Throughout the development of their program, they have received assistance by states like Pakistan, Russia and China (Abad & Priego, 2008) and nowadays the possibility of a North Korean denuclearization is nearly inexistent (Garrido, 2019).

The fact that they operate independently and outside of the scope of the non-proliferation regime worries the international community and sends a wrong message of a certain impunity. Even though, North Korea has been sanctioned several times by the UNSC and by the EU, it is clear it has not been enough to stop the North Korean nuclear program. This questions the international community's ability to prevent proliferation and to enforce the NPT provisions as well as the suitability of economic sanctions to that end.

CHAPTER 6: PAKISTAN

Pakistan became a de facto nuclear state in May 1998, after carrying out its sixth nuclear test (Torres, 2020) which raised alarm bells worldwide and was condemned by the UNSC. Unlike North Korea, Pakistan has never signed the NPT and thus has never entered into

international commitments regarding their nuclear weapons (Ortega García, 2016). Nevertheless, it is member of the IAEA since 1957 and has actively cooperated with it when it comes to the pacific use of nuclear energy (Torres, 2020). For all that, this chapter will be focusing on the development of the Pakistani nuclear program -born as a result of the Indian one- and will portray their international status. Moreover, their lack of intention in denuclearization will be evinced.

6.1 ACQUISITION

Before venturing into their intriguing nuclear program, we must highlight that the gigantic effort made by Islamabad to develop its own nuclear arsenal has always been prompted by the idea of becoming the first Islamic state in the world to own the nuclear bomb, in the hopes of getting a higher status within the Islamic community (Garrido, 2010); plus it has tried to follow India's lead (Torres, 2020). This last detail may reflect what Singh & Way label as the hazard model for nuclearization, where an existing rivalry or a militarized dispute, in this case with its neighbor India, encourages proliferation (Sagan 2011, p. 233).

Although Pakistan had initially proposed a Nuclear-Weapon-Free Zone in the region in an attempt to stop nuclear proliferation, India's rejection to their proposal -mostly because of the Chinese possession of nuclear armament- did nothing but accelerate Islamabad's decision to obtain the nuclear bomb (Abad & Priego, 2008). Their defeat in the 1971 Indo-Pakistani War³⁹ together with the Indian denial of the NPT -and ergo, the non-proliferation regime- made Pakistan act similarly (Torres, 2020).

The Pakistani nuclear program started in 1954, prompted by the so-called American Fair "Atoms for fear", and merely directed towards civil purposes (Abad & Priego 2008, p. 24). Contrary to the Indian non-alignment policy, Pakistan appeared to be favorable to an amicable relation with the US. In fact, a Friendship & Cooperation Treaty was signed between these two countries in 1959 together with other collaboration agreements in nuclear matters with Western countries such as France or Canada. Soon enough, the nuclear energy project would permeate the Pakistani institutions, giving birth to bodies such as the Atomic Energy Committee -later transformed into the Atomic Economic Council- or the Atomic Economic Commission. The arrival of Zulfikar Bhutto to the

³⁹ In spite of the collective-defense provision in one of the American-Pakistani treaties, the US did not help Islamabad in this war (Abad & Priego, 2008).

Presidency stimulated their nuclear energy interest and was regarded not only as a way to prompt economic growth, but also to gain international prestige (Abad & Priego, 2008).

6.2 DEVELOPMENT

At the beginning of the 1970s, the second stage of their nuclear program, this time military oriented, started; and was directed both by the PAEC⁴⁰ and the renowned Dr Khan (Torres, 2020). Obtaining the nuclear bomb would mean balancing their conventional inferiority compared to India and would keep the balance of power in the South of the region - previously altered by India- (NTI, 2020). The program was based on gas centrifugation technology which had been learnt by Dr Khan in the Netherlands some years back. This centrifuge system consisted in gas centrifuges spinning at a very high-speed enabling them to separate uranium and to develop nuclear weapons at facilities hard to detect (Garrido, 2008). Their first nuclear test took place in 1974 in Pokharan (Abad & Priego, 2008).

In 1984, this Islamic Republic had already assembled their first nuclear device (NTI, 2020) thanks to Dr Khan's international network. Their first uranium enrichment facility came into operation in that same year in Kahuta, allowing Islamabad to produce enough enriched uranium as to build the nuclear bomb (Garrido, 2008). Their precipitation towards the nuclear weapon, was facilitated by the distended American attitude, whose priority at the time was the containment of the USSR in the context of the Cold War. Thus, the Reagan Administration, appreciated the Pakistani assistance in Afghanistan and looked the other way in relation to their nuclear weapons program (Abad & Priego, 2008). In 1986, their capacity to build the nuclear bomb was confirmed once the threshold of enriched uranium to obtain the bomb was exceeded (Garrido, 2008). The illicit exportation of technology and process components set in motion by Dr Khan in the 1980s became a huge import-export business that spread all over the world from South Africa to Turkey or Malaysia (Torres, 2020). Throughout the 1990s, their nuclear program continued, acquiring 5000 magnet rings from China in 1996 (Abad & Priego, 2008); and becoming a de facto nuclear state in May 1998 after carrying out its sixth nuclear test (Torres, 2020).

In the present, the number of nuclear facilities is a classified information, being only known that they are numerous and disseminated all over the national territory. The most important

⁴⁰ Pakistan Atomic Energy Commission

ones are the one in Kahuta and the one in Khushab. In regard to their nuclear arsenal, it has been estimated that they currently hold between 150 and 160 warheads and possess 3.5 tones of highly enriched uranium. Finally, their nuclear doctrine has not formally been proclaimed and ergo, it is known under what circumstances they would be willing to perpetrate a nuclear strike. The last notice was given by President Musharraf in 2002, who highlighted the last resort condition of their nuclear arsenal, only when the existence of Pakistan as a nation state were at stake (Torres, 2020).

6.3 POSITION WITHIN THE UN SYSTEM

In relation to their international relations, Pakistan has always felt discriminated by the international community in comparison to India and has claimed the existence of a double standard that undermines it. Whereas India is evolving towards a de facto integration within the non-proliferation regime and has signed bilateral nuclear treaties with relevant states like the US, Pakistan is still trying to fit in the licit market for dual-use components both with nuclear and missile related (Torres, 2020). This overview reveals that if we all want to fight nuclear proliferation, favorable treatment to some non-compliant states over others will not help preventing proliferation; on the contrary, it will display a (wrong) endorsement of the non-proliferation regime violations (Gamarra, 2006).

Furthermore, it is important to say that the Pakistani original intent of spreading the know-how around the Arab world has acted as a catalyst for nuclear proliferation's knowledge (Bardají & Portero, 2007), destabilizing not only the region, but the whole world (NTI, 2020). Dr Khan's public statements in 2004, recognizing the transfer of nuclear technology to North Korea, Iran and Libya between 1986 and 1993, were not well received by the international community (Garrido 2010, p. 15) and underlined what a great menace Islamabad represents for global peace and security (Torres, 2020); but again, no robust international response was given. On the other hand, article 2 of the NPT, does not expressly forbids the non-nuclear weapon states from aiding other non-nuclear states that have not signed the NPT; and thus, the former, are not technically breaching the treaty (Bagheri, 2018). This evinces one more time the legal loopholes of the non-proliferation regime.

In respect to the UNSC Resolutions, it is important to mention Resolution 1172 (1998) adopted unanimously. It condemned the Pakistani -and Indian- de facto nuclear status

acquired after carrying out several nuclear tests. However, we must clarify that the UNSC has never imposed proper sanctions on neither of them despite considering their nuclearization a threat to international peace and security. On the contrary, this document -reiterating a 1992 Statement of the President of the UNSC of the time on the matter- intended for Pakistan and India to do the following: ending the nuclear weapon tests and programs, finishing their ballistic missiles programs, not exporting nor importing nuclear equipment, material and technology, joining the NPT and the CTBT, participating in the Geneva disarmament Convention and initiating negotiations to work on the Indo-Pakistani differences. These pledges were ignored by both states. In this sense, we should mention that the US did impose sanctions on Pakistan in 1998 through the Glenn Amendment, but would later be uplifted during the WOT (Hosur, 2010).

In a nutshell, there has been a generalized absence of international response concerning the Pakistani breach of the non-proliferation regime, contrary to that of North Korea. This may suggest the following conclusions defended by Hosur (2010):

- a) The good or bad relations with the US⁴¹ highly determine the international treatment a nations state will receive.
- b) Violating the non-proliferation regime established by the NPT when having previously committed to it -such as North Korea- is more criticized than categorically rejecting it from the beginning -like Pakistan-, even though the result is the same.
- c) The UNSC trend to impose sanctions on authoritarian regimes -North Korea and Iran- rather than democratic ones -India- when breaching the NPT.

6.4 INTERNATIONAL ALIGNMENT

At the beginning of their nuclear program, when it was only aimed at producing nuclear energy with peaceful purposes, Pakistan signed cooperation agreements with several states such as the US, France or Canada. These countries would offer them some nuclear technology and would allow Pakistani scientists into their national territories to learn. In fact, the US would become one of their main allies in nuclear matters and helped them in the construction of the so-called PINSTECH (Pakistan Institution of Nuclear Science and Technology) and KANUPP (Karachi Nuclear Power Project). The latter's infrastructure included a reactor that was obtained thanks to Canada. Soon enough, their international

⁴¹ In the Pakistan's case, the US conception of Islamabad as an ally in the WOT has resulted in lifting (American) sanctions (Hosur, 2010).

network would grow enabling them to cooperate with European states such as France, UK, Belgium or even Spain. However, we must highlight that this assistance was provided by West in light of the civil character of their nuclear program. That is why, the evolution of the Pakistani nuclear program towards military ends incurred the wrath of the aforementioned countries (Abad & Priego, 2008).

In the following stage of their nuclear program, Pakistan tried to find a reprocessing plant supplier: France -and would be funded by Saudi Arabia and Libya-. This made the US displeased and tried to sever Pakistan's ties with Canada and France. However, Pakistan had already found a new ally who facilitated them knowledge through the Bhutto-Yang Zemin Pact: China. In fact, the Chinese assistance has been proven to be essential in the enrichment of uranium (Abad & Priego, 2003) and is currently the only state that openly supports the Pakistani civil nuclear program. Moreover, it has signed an agreement in 2017 with Pakistan to build an additional reactor -CHANUPP-5- and has recently assisted Islamabad in the development of two new reactors although under the OIEA' surveillance (Torres, 2020).

Astonishingly, the US' role in the Pakistani development of the nuclear bomb has been more important than it is thought. With the uplifting of the Symington Amendment, which prohibited American assistance to countries trafficking with nuclear equipment and technology without the OIEA' surveillance (Hathaway in Arms Control Association), Reagan helped Pakistan succeed in their nuclear objectives. A considerable amount of the funds transferred from the US to Islamabad to fight the USSR in Afghanistan were deviated to Dr Khan's installations. This fact was very well known by the American Administration but was regarded as collateral damage. In the 1990s, the Clinton Administration also appeared favorable to budget for Pakistan (opacity), albeit on the grounds of *counterterrorism, peacekeeping, drug trafficking and military training* (Abad & Priego 2008, p. 30). Furthermore, the US' investments in the improvement of the Pakistani nuclear program in the 2000s should not be forgotten either (Garrido, 2008). Another source of financing arose from the revenue made in the sale of components to enrich uranium to countries such as Libya, Syria and Iran (Abad & Priego, 2008).

Concerning, the exchanges between Pakistan and North Korea, we can refer to what it has been said in the previous chapter. We can only add that Pakistan was granted access to sensitive technology for the fabrication of plutonium and ballistic missiles by North Korea,

enabling them to fully target India (Torres, 2020). Additionally, North Korean scientists were present in the last Pakistani nuclear tests (Abad & Priego, 2008).

6.5 DENUCLEARIZATION

Not only has Islamabad not signed important treaties like the NPT or the CTBT, but it is currently blocking negotiations in the Conference on Disarmament in Geneva⁴². Surprisingly enough and opposite to what the legal nuclear powers currently intend, Islamabad is expected to increase its number of warheads between 220 and 250 by 2025, and thus, to rise its arsenal, instead of reducing it (NTI, 2020). Therefore, we can say that no effort has been made regarding denuclearization and given the ongoing conflict with India in the Kashmir region, the security threat is even higher (Bardají & Portero, 2007).

6.6 BRIEF CONCLUSION

Since the Pakistani defeat in the 1971 Indo-Pakistani War, Islamabad has made a gigantic effort economically, technically and humanly in order to develop the nuclear bomb (Garrido, 2008). In this sense, Dr Khan's centrifuge technology and the American relatively passive attitude have been key in the success of the Pakistani nuclear arms program. Moreover, the foreign assistance received by Pakistan exceeds that of many countries (Abad & Priego, 2008), demonstrating the existence of double standards both within the international community and in non-proliferation regime (Bagheri, 2018).

The acquisition of nuclear weapons by Pakistan -and India- have been regarded as a failure of the non-proliferation regimen since no treaty has been signed and no statement has been made regarding denuclearization (Torres, 2020). However, no strong international response has been given, contrary to that in the North Korean case. This demonstrates an unequal treatment provided within the international community, especially when it comes to the US' relations (Hosur, 2010).

FINAL CONCLUSIONS

Throughout this paper we have tried to meet all the objectives proposed at the beginning by portraying a realistic image of the current non-proliferation

⁴² Particularly hindering the Material Cutoff Treaty, also known as the FMCT.

regime -whose cornerstone is the NPT-, and by elaborating on four different states' nuclear programs. Whereas two of them obtained the nuclear bomb legally, i.e safeguarded by the NPT and with the international community's blessing; the other two acquired the nuclear weapon by illegal means and ergo represent a great threat to international peace and security.

In relation to the non-proliferation regime, we must remember that the NPT is based on the premise that anyone who did not conduct a nuclear test before January 1st, 1967 could no longer do so in compliance with international law. In fact, the NPT classified the nuclear weapon states worldwide into two categories: *de iure* nuclear states and the *facto* nuclear states, the first being those that legally possessed nuclear weaponry. That detail is what has led to asymmetries and opposition to the regime since it institutionalizes discrimination within the international community, despite being the most successful covenant of all times⁴³. In a nutshell, a state can only possess nuclear armament legally if the NPT recognizes their right to do so.

Concerning the ability of states and institutions to prevent nuclear proliferation, the lack of provision for an efficient sanctioning mechanism in the NPT has also been criticized, although being subject to the IAEA's monitoring. Additionally, the cases presented also show that (the UNSC') sanctions have been proven to be insufficient to prevent nuclear proliferation as harsh as they have sometimes been.

In relation to the first *de iure* state analyzed, UK, we can say it was the first of the four who became a nuclear power, after successfully carrying out a nuclear test in 1952, and was highly supported by the US. In fact, their nuclear program has always been conceived within the NATO structure, which is why it is not surprising that the trigger for them to decide on it was the Soviet blockade of Berlin after World War II. Although they are the *de iure* nuclear state with the smallest nuclear arsenal, they are undergoing a process of modernization and have recently made the decision to decrease the number of warheads they were going to get rid of. This means going backwards in

⁴³ Had it not been for the NPT, more than twenty states would have gone weapon-nuclear since 1968 (Garrido, 2005).

terms of disarmament progress, as it is its obligation to disarm under article VI of the NPT. However, since the treaty allows them to possess the nuclear bomb, no one has expressed concern about it. Their non-proliferation efforts have normally been moderate, and diplomacy centered without exposing innovative proposals to enforce the NPT, though voting in favor of sanctioning uncompliant states as a permanent member of the UNSC.

On its part, France, started their nuclear weapons program to feel that they could provide their citizens with a purely French defense of France after World War II; and is indeed considered as an insurance policy. As opposed to the UK, they developed their own nuclear bomb without foreign help, not even the US and despite their later membership to the nuclear club. Their first nuclear test was carried out in 1960 and therefore France is also a *de iure* nuclear state. With respect to its dedication to the non-proliferation regime, France has adopted a harsher stance, unconditionally favoring economic sanctions for defaulting states, although these might not be enough to deter uncompliant states. Furthermore, they have proposed original ideas to boost observance of the NPT and have themselves publicly stated their abidance by the NPT but refuse the so-called Global Zero. In this sense, the categorical of the majority of *de iure* nuclear states -including France- (Perkovich, 2015) makes the Global Zero utopian and practically unattainable, in addition to horizontal proliferation.

The third state that is analyzed, North Korea, entails a higher degree of difficulty than the other, since it became a *de facto* nuclear state in 2017, but has never been in possession of nuclear armament legally. Despite adhering to the NPT in 1985, after a series of obstinate episodes in which they were assisted by several states such as China or Pakistan, they withdrew in 2003, becoming one of the biggest threats to peace and security nowadays. They have been sanctioned several times both by the UNSC and the EU, but the sanctions do not seem to be enough to stop the Kim Regime to continue to boast about their nuclear strength. Their attitude has always been manipulative and opportunist, having misled and created false expectations to the international community.

Their withdrawal from the NPT was a challenge to the non-proliferation regime and highlighted its fissures and weaknesses. In addition, (allowance of) the continuation of this behavior in time, and the help provided by de iure nuclear states has begged the question of whether other de iure states really wish to end nuclear proliferation. Concerning North Korea's denuclearization, the chances of it taking place are almost inexistent because of the the advance level of their program, the historic failure and the absence of a waybill.

Finally, the fourth and last nuclear state discussed in this paper is Pakistan. Islamabad's interest for a nuclear program was born as a reaction to that of India and also was an attempt to gain prestige by becoming the first Muslim state to possess the nuclear bomb. Pakistan, like North Korea was helped by other states such as the US (even if it was indirectly), which suggests again whether the non-proliferation in place that benefits only five countries in the world, wants to be maintained by these states. On another note, Pakistan became a nuclear state in 1998 (which explains why it nuclearized itself illegally); however, they have never been sanctioned by the UNSC, as opposed to North Korea. Once again, we see that a double standard idea underlines within the international community and particularly among the UNSC permanent members and showing that some countries are perceived as more dangerous than others. For that matter, it is worth to say that Pakistan-like India- has never been party to the NPT and thus has not proclaimed itself as a supporter of the current non-proliferation regime and yet it has not been punished. In fact, Pakistan is at present blocking the Conference on Disarmament in Geneva and is expected to keep increasing its arsenal.

All the above, stresses the need to jointly support the NPT and the need to encourage its compliance regardless national or regional interests, because that is the only way to finish illegal nuclear proliferation and truly protect international peace and security.

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