URL: http://dx.doi.org/10.31703/gsssr.2023(VIII-I).07

• p- ISSN: 2708-2121

#### e-ISSN: 2708-3616

#### Nuclear Deterrence and Non-proliferation Regime: A Critical Analysis

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Vol. VIII, No. I (Winter 2023)	<b>Pages:</b> 73 – 80	DOI: 10.31703/gsssr.2023(VIII-I).07

Abstract: This research paper critically examines the intricate relationship between nuclear deterrence and the non-proliferation regime, focusing on India and Pakistan as a case study. It analyzes the role of the nonproliferation regime in preventing nuclear weapons proliferation and evaluates the motivations for states to acquire such arms. The paper also explores the concept of nuclear deterrence as a strategy for preventing aggression, discussing its effectiveness and limitations in maintaining global security. It delves into how possessing nuclear weapons can impact non-proliferation efforts, both strengthening and weakening them. Through the India-Pakistan case study, the research assesses the dynamics of nuclear deterrence in their bilateral relations and its influence on regional stability. The study evaluates the non-proliferation regime's effectiveness in managing their nuclear capabilities and minimizing conflict risk. These insights are valuable for policymakers, scholars, and practitioners working toward nuclear disarmament, non-proliferation, and global peace.

Key Words: Nuclear Deterrence, Non-proliferation Regime, Nuclear Proliferation, India, Pakistan, Regional Stability

#### Introduction

The origin of the spread of nuclear weapons traces its roots to a period when various states, including the United States of America, sought to safeguard their national security interests. Pakistan's and India's nuclear doctrines are formulated to mutually discourage one another, employing distinct strategies that each has independently embraced. But before discussing the point, Pakistani and Indian states conducted nuclear detonations in different time frames in the form of operations that were titled with codenames "Pokhran-I" and "Chagai-I" (Carranza, 2002). The points of Nuclear proliferation and non-proliferation have been discussed and then they are comprehensively explained in the case study of India and Pakistan. The upsurge of the concept of nuclear non-proliferation on a global level had ensured the point of the study that the reasons for those states which remain fragment and signatory of the treaty for the Nuclear Non-Proliferation (NPT) cannot indicate the opportunity of nuclear deterrence by attainment into a nuclear arms race for the accomplishing of its strategic and security goals. Concentrating on the viewpoint of Nuclear non-proliferation, the notion came into the competition and also the consternation of the concept of Nuclear Proliferation on a global level. The concept was given rise when the outcry for denuclearization and bringing a halt to the development or production of weapons of mass destruction (WMD) was started especially after the events of the Cuban Missile Crisis (Carranza, <u>2002</u>).

### Nuclear Proliferation and Nonproliferation

#### Studying and analyzing the aspects of Nuclear

Proliferation is a concept that dates back to the decade of 1930s when nuclear weapons turned out to be a very big reality in military affairs and worldly aspects. Literary the meaning of this concept is to develop or pave the procedure of growth of nuclear objects especially atomic weapons or weapons of mass destruction (WMD). The concerning scenario unfolded during an era when Western nations such as the United States and its cohorts initiated efforts on the "Manhattan Project." This covert initiative commenced in 1942 amidst the global tumult of World War II, spearheaded by the United States, with the aim of creating nuclear arms through clandestine research endeavours covering the entire procedural spectrum. This juncture eventually led to the deployment of nuclear weaponry by the United States as a response to the Kamikaze assaults on Pearl Harbor perpetrated by the Japanese Empire. This retaliation manifested in the form of two nuclear bombs being dropped on the cities of Hiroshima and Nagasaki, both located within Japanese territories.

The transformation nuclear of proliferation into a formidable global predicament occurred during the emergence of the Cold War era. This period witnessed the initiation of competition in nuclear armaments among nations including the United States of America, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, the French Republic, and even the People's Republic of China. Within this timeframe, the pursuit of fissile materials and nuclear weapon technology gained momentum, evolving into a significant factor in global political dynamics. The escalation of its inherent potential substantiated the tangible threats to international peace and security. The foremost argument in history that turned the problem of nuclear proliferation more serious was when the scientist known as Klaus Fuchs who was of German descent American secretly gave the government of the Soviet Union the formulas and techniques as information for the development of weapons of mass destruction which kept a lot of importance in the nuclear proliferation procedures during the era of Cold War. The issue of nuclear proliferation turned into a more serious issue when thermonuclear weapons also known as Hydrogen bombs (or H Bombs) were being developed by the two major competitors of the period of the Cold War (Carranza, 2002).

The dissuasion of nuclear proliferation efforts gained traction following the occurrences of the Cuban Missile Crisis in 1962. This pivotal event compelled the global community to compel international and intergovernmental bodies such as the United Nations and the International Atomic Energy Agency (IAEA) to take action. Consequently, this paved the way for the emergence of the Nuclear Non-Proliferation concept. This, in turn, played a significant role in the creation of important agreements like the Non-Proliferation Treaty (NPT) and the Comprehensive Test Ban Treaty (CTBT) (Potter, 2005). After analyzing and discussing the concept of nuclear proliferation, suitable examples that are found for strengthening the point of the very concept are the nuclear arms of India and Pakistan which are situated in the region of South Asia making a possibility for the escalation of nuclear war at any time with the intensity of spreading nuclear winter in the region due to its procedures of nuclear proliferation in form of developing of nuclear weapons, fissile components and tactical missiles capable of taking nuclear devices (Potter, 2005). The nuclear weapons program was initiated by India in 1974 while the state of Pakistan initiated itself to be a nuclear power after conducting detonations of atomic devices in the mission with the codename of "Chagai-I" (Potter, 2005).

Focusing on the viewpoint of Nuclear nonproliferation, the concept came into competition and also discouragement of the concept of Nuclear Proliferation on a global level. The concept was given rise when the outcry for denuclearization and bringing of a halt to the development or production of weapons of mass destruction (WMD) was started especially after the events of the Cuban Missile Crisis (Yoon & Suh, 2013). Furthermore, the notion gained further refinement when nations such as the Union of Soviet Socialist Republics (USSR) and the United States ultimately reached a consensus on endorsing the pact in the shape of the Nuclear "Non-Proliferation Treaty (NPT)" (Yoon & Suh, 2013). The treaty was signed for the disarmament of nuclear weapons on a global level and to bring control to the procedures of development of fissile material. development of nuclear technologies for military purposes, and also to stop the production of nuclear weapons. The Treaty of Nuclear Non-proliferation was a breakthrough in the reduction of the nuclear threat to international security and peace in the era of the Cold War. It was a multilateral treaty that had now signatories the number 191 consisting of world states. Major nuclear weapon-capable states like Pakistan, India, and Israel (allegedly) hadn't signed the treaty and the case had eventually turned to still existing as a problem for the escalation of crisis and issues for international security and peace which had already been approached by the international community to sign an observation and nuclear disarmament treaty in between the states of Pakistan and India for the region of South Asia and to comprise a committee like the one that had been established under the signing of the treaty of NPT between USSR and US to keep watch over the nuclear activities of each state (Yoon & Suh, 2013). Nuclear non-proliferation had been turned effective in the case of the Cold War era but not in the case of Israel. India. and Pakistan which had the capabilities of being turned into offensive actors having nuclear weapons.

# Nuclear Deterrence

The concept of Nuclear Deterrence is derived from the theory of the field of Strategic Studies known as the "Theory of Deterrence". The theory suggests the point that the taking of initiative by using an inferior force for the purpose frightening of a larger entity in the shape of a regional rival's strategic, political or military adversaries (Wilson, 2008). The showing off the capability of the destructive force or offensive power by giving a signal to an opponent that the mean capabilities of the state can be used against the opposing power at any time as the source of protection or achieving of state's security and military aspects. The deterrence theory includes the giving of a psychological blow to the mean opponent being defined in the field of strategic studies as well as in international relations (Wilson, 2008). The deterrence theory includes the ideas of strategies of nuclear deterrence in which the maintaining of the balance of power or getting into a position with having a capability through the existence of nuclear weapons with one party in the conflict which also ensures the sustainability of the situation ion in which a war cannot be escalated (Wilson, 2008). Briefly analyzing the concept of Nuclear Deterrence, the justification of the prevention of a conflict escalated can be done through the procedures of self-defence against the possible conduct of violence or armed attacks against the mean threat that arises to the situation of security of any state. It is also a proven rationale that the states that have nuclear warheads and arsenal and have the capability to develop nuclear components of uranium or plutonium enrichment for military purposes may use the term nuclear deterrence for the prevention of declaration of war or any serious armed conflict. The tactics of nuclear deterrence include the tools of diplomacy for the state to bargain any situation that may be favourable for the security and strategic interests of any state. The point of nuclear deterrence has proven to be quite costly in terms of the state's economy as well because just like the term of nuclear proliferation, it ensures the point of spending a lot of state resources on the maintenance of nuclear warheads and remaining in the procedure of nuclear arms race. One of the positive aspects of nuclear deterrence is the enhancement of stability in any region which can be a quagmire or a bone of contention for the start of any longscale or full-scale escalation of war and military conflict which may threaten the state's usage of nuclear weapons causing a nuclear winter in the region (Shaikh, 2002). Both the negative and positive aspects coming as the outcome of nuclear deterrence can be seen in the case of Pakistan and India which are two main archrivals in the region of South Asia. Both Pakistan and India had the capabilities of being the states that could deter each other on nuclear platforms of land, air, and sea by having the potential to deter each other on every ground through their nuclear weapons (Shaikh, 2002).

### The correlation between Nuclear Deterrence and Nuclear Non-Proliferation

The rise of the concept of nuclear nonproliferation on a global level had ensured the point of the study that the reasons those states which are part and signatories of the treaty for the Nuclear Non-Proliferation (NPT) cannot choose the option of nuclear deterrence by getting into a nuclear arms race for the achieving of its strategic and security goals (Giles & Doyle, <u>1996</u>). But there can be a possibility for those states that are signatories to the Non-Proliferation Treaty (NPT) but already have some limited nuclear weapons to get into the situation of nuclear deterrence if in any case, it faces any possible threat to the vital interests of the mean state based on security and strategic aspects. The link between NPT and the concept of Nuclear Non-Proliferation with the concept of nuclear deterrence has remained quite important, especially in the case of India and Pakistan which were forced and pressurized by many players in the international community to stop the arms race of weapons of mass destruction (WMD) and to also ensure the very point that these both states may not fell into a situation where both of these nuclear powers of South Asia may get into the situation for the using of bilateral approaches for the process of nuclear non-proliferation by ending the concept of nuclear deterrence as their key strategies or doctrines of national security policies of both nations in the very region of South Asia.

# Case Study of India and Pakistan

The case of nuclear proliferation being conducted by two archrival states of the South Asian region known as Pakistan and India concerns a lot in the field of nuclear security, international relations, and defence studies by its academicians and by the states that are signatory to the treaty for the non-proliferation of nuclear weapons (NPT). Diving into the concern of proliferation of nuclear weapons by both Pakistan and India, the Islamic Republic of Pakistan maintains weapons of mass destruction (WMD) the number between 160-200 warheads while the Republic of India has nuclear warheads around in the number of 140-150 (Giles & Doyle, <u>1996</u>).

enhanced the Both states arming themselves with nuclear weapons on the platforms of air, land, and sea and were capable of enriching the uranium and other radioactive elements for military purposes. The surge in the nuclear arms race by the Pakistani state was started in a reaction to 1974's Indian detonations of nuclear devices under the mission titled with codename "Smiling Buddha" (Giles & Doyle, 1996). It was the era of rule of Prime Minister Zulfigar Ali Bhutto who insisted on the seriousness of the matter and suggested the development of nuclear weapons. In the year of 1998, the international community came across the level of a more alarming situation when both states gave signals of being capable of maintaining and using nuclear devices for military purposes against each other (Giles & Doyle, 1996). It is mentioned that Pakistan has stockpiled 280 kg of enriched plutonium that passes through the maintenance procedures in the nuclear facilities inside the Khushab and Chashma regions of Pakistan. India maintains uranium of around 40 kilotons for military and strategic aspects (Giles & Doyle, 1996). Maintaining such large stockpiles of nuclear components and devices by both states makes a surety of the point that both of these nations will not go for a full-fledged conventional war and gradually makes a point for maintaining the balance of power in the region of South Asia. However, the sensitivity of the weapons of mass destruction (WMD) that both states kept comes to the point of possible escalation because of the various conflicts that are existent among the states of Pakistan and India (Giles & Doyle, 1996).

The case study of India and Pakistan presents a compelling context to examine the correlation between nuclear deterrence and the non-proliferation regime. The region's history of conflicts and territorial disputes, coupled with the possession of nuclear weapons, has created an environment of heightened regional tensions. For instance, the Kashmir conflict between India and Pakistan, both nuclear-armed states, has remained unresolved for decades, with the spectre of nuclear escalation adding an additional layer of concern. The presence of nuclear weapons, intended to deter aggression, can inadvertently increase the risk of miscalculation and unintended escalation, thus challenging the effectiveness of nuclear deterrence in maintaining stability.

Moreover, the case study underscores the arms dynamics triggered by nuclear race capabilities. India and Pakistan's possession of nuclear weapons has fueled an ongoing competition between the two countries, as each seeks to enhance and expand their nuclear arsenals. This arms race dynamic further complicates the non-proliferation regime, as one state's pursuit of advanced nuclear capabilities can serve as justification for others to follow suit. The example of India's development of nuclear submarine capabilities and Pakistan's efforts to enhance its tactical nuclear weapons program highlights the reciprocal nature of this arms race and the challenges it poses to the nonproliferation agenda (Giles & Doyle, 1996).

Despite the presence of nuclear deterrence in the India-Pakistan context, it is essential to critically assess its effectiveness. While nuclear deterrence aims to prevent aggression, its limitations are evident in the persistent conflicts and arms race dynamics in the region. The India-Pakistan case study serves as a poignant reminder of the delicate balance between nuclear deterrence and the non-proliferation regime, necessitating a nuanced understanding of the complexities involved in maintaining global security. Here are some escalating events between the two states:

- May 11-13, 1998: India conducts a series of nuclear tests, including the detonation of five nuclear devices, signalling its entry into the nuclear weapons club.
- May 28-30, 1998: In response to India's nuclear tests, Pakistan conducted a series of nuclear tests, including the detonation of six nuclear devices.
- December 13, 2001: A terrorist attack on the Indian Parliament in New Delhi raises tensions between India and Pakistan. India accuses Pakistan-based militant groups of carrying out the attack, leading to a military standoff between the two countries.
- May-June 2002: India and Pakistan engage in a military standoff along their shared border, known as the Line of Control. Both countries mobilize their

armed forces and place their nuclear weapons on high alert, raising fears of a potential nuclear conflict.

- February 26, 2019: In response to a terrorist attack in Indian-administered Kashmir, India conducts airstrikes on a suspected militant training camp inside Pakistan. Pakistan retaliates by conducting airstrikes on Indian military targets. This exchange of airstrikes escalates tensions between the two nuclear-armed neighbours.
- Ongoing: Cross-border skirmishes and ceasefire violations along the Line of Control in Kashmir continue to occur sporadically, heightening the risk of escalation and further exacerbating the security dilemma between India and Pakistan.
- Nuclear Doctrine: Both India and Pakistan have developed nuclear doctrines outlining their respective nuclear postures and strategies. India's nuclear doctrine emphasizes a policy of "Credible Minimum Deterrence," stating that it would only use nuclear weapons in response to a nuclear attack or a largescale conventional attack. Pakistan's nuclear doctrine, commonly referred to as "full-spectrum deterrence," suggests that it would employ nuclear weapons in response to a conventional military threat from India.
- Kashmir Conflict: The longstanding conflict over the disputed region of Kashmir between India and Pakistan remains a significant factor contributing to tensions and the nuclear deterrence dynamics. The two countries have fought several wars and engaged in multiple border skirmishes over Kashmir, making it a volatile flashpoint in the region.
- Confidence-Building Measures: In an attempt to manage nuclear risks and build trust, India and Pakistan have engaged in confidence-building measures (CBMs). These include agreements on nuclear risk reduction, such as the 2005 Agreement on Pre-Notification of Flight Testing of Ballistic Missiles. However, the effectiveness and implementation of these CBMs have

been limited, given the broader political and security challenges.

- International Mediation Efforts: The international community has been involved in diplomatic efforts to reduce tensions and promote stability between India and Pakistan. Various countries and organizations, including the United States, have facilitated dialogue and mediation between the two countries during periods of heightened tensions.
- Non-Proliferation Concerns: The fact that both India and Pakistan possess nuclear weapons brings about apprehensions regarding the existing non-proliferation framework and the potential escalation of nuclear proliferation within the region. The global community has advocated for the inclusion of both nations in the Nuclear Non-Proliferation Treaty (NPT) as non-However. nuclear-weapon states. neither India nor Pakistan has vet ratified this treaty.

Approaches for the form of NPT for the chapter of South Asia had been made by the intern national community in which the states including France, Russia, United States, Australia, and Japan made efforts the starting of the campaign for the designing of a framework for the starting of procedure of nuclear disarmament, but the efforts were failed in this regard (Bluth, 2010).

No doubt, the nuclear policies of both states have one plus point which was signed in an agreement between Pakistan and India in the year 1988 and went into implementation that both of the states will make surety of informing each other regarding their development of new nuclear devices and atomic capable missile or equipment production (Bluth, 2010). The situation was about to escalate towards a nuclear crisis at the beginning of 2019 when both nations confronted each other in reaction to the suicide attack in Pulwama and the Indian air raid over the Balakot region of Pakistan & Air Forces of both states reached the point of confrontation (Mohan, <u>2023</u>).

Pakistani state threatened to use nuclear weapons for its safety against the mighty conventional capabilities of India and it was also high time that Indian Defense Minister Rajnath Singh considered the review of the nuclear policy of India regarding its "no first use policy." (Mohan, <u>2023</u>).

The nuclear weapons that had been developed by both nations are to deter each other through their different military doctrines. The only doctrines that will be discussed will be the nuclear doctrines that had been adopted by Pakistan and India (Mohan, 2023). India's nuclear doctrine is based on a strategy of "Credible Minimum Deterrence," which involves employing nuclear weapons while adhering to a "No First Use Policy." This stance entails utilizing nuclear armaments solely in response to an adversary's deployment of such weapons against India. Pakistan's deterrence policy, on the other hand, holds a distinct stance. It is firmly embedded in the principles underpinning the nation's national security strategy. According to this policy, Pakistan reserves the option of employing nuclear weapons if it perceives a direct existential threat to its security and sovereignty (Mohan, 2023).

### Conclusion

The case study of India and Pakistan highlights the complexities and risks associated with nuclear deterrence. The events and dynamics between the two countries demonstrate the potential for escalating tensions, the challenges of managing regional security, and the limitations of deterrence in preventing conflicts. The presence of nuclear weapons within this context raises apprehensions concerning the non-proliferation framework, emphasizing the ongoing necessity to advance disarmament, dialogue, and confidencebuilding measures. These actions are imperative for mitigating the risk of nuclear conflicts and bolstering regional stability. At the core of this examination, it is important to note that the progression towards militarized nuclear capabilities was initiated in the 1930s era. This trajectory was exemplified by the "Manhattan Project," which emerged with the objective of nuclear weapon development. This pursuit was driven by concerns held by nations, including the United States, about the potential atomic armament endeavours of adversaries like Germany during World War II. By the 1940s, the United States employed nuclear weapons against Japan,

demonstrating its nuclear prowess through the deployment of nuclear bombings. The subsequent Cold War period saw a nuclear arms race unfold, involving the United States, the United Kingdom, and France on one side, and the Union of Soviet Socialist Republics (USSR) on the other. The epoch of the Cuban Missile Crisis served as a turning point that catalyzed global denuclearization efforts, culminating in the endorsement of pivotal agreements such as the NPT and CTBT. The modes of deterrence were changed between these two powers but another threat that emerged related to international security by nuclear weapons was from the side of South Asia where India and Pakistan were capable of maintaining a large stockpile of nuclear warheads and using them for military purposes.

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