

Formulation and Transformation of India's Nuclear Policy (1944-1998): A Critical Analysis

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Abstract

The formulation and transformation of India's nuclear policy from 1944 to 1998 represent a critical trajectory in the nation's strategic and diplomatic evolution. Beginning with early scientific initiatives under the leadership of Homi J. Bhabha, India's nuclear journey was initially driven by the vision of peaceful nuclear energy for development and self-reliance. Influenced by the trauma of colonialism and the idealism of leaders like Jawaharlal Nehru, India emphasized disarmament and maintained a firm stance on the peaceful use of nuclear energy. However, changing global geopolitical realities, regional security challenges, and technological aspirations gradually reshaped this approach. This study explores the key phases in India's nuclear policy- from its formative scientific and moral foundations to a pragmatic and security-centric doctrine. This paper aims to critically examine the domestic and international factors that influenced India's nuclear policy over five decades. It also assesses the role of key policymakers, the institutional framework of the Indian nuclear establishment, and the interplay between strategic necessity and ethical considerations. The study ultimately situates India's nuclear evolution within a broader discourse on sovereignty, deterrence, and responsible nuclear stewardship in the post-colonial world order.

Keywords: Atomic Energy, Non-proliferation, Fissile, Nuclear Policy, Missile

Introduction

In 1947 India emerged as an independence nation after the end of the World War II. The world had already entered into the new World Order, the nuclear age. This development fundamentally transformed the global affairs with the changed in the role of warfare. With the coming of Cold War in South Asia, India first Prime Minister Jawaharlal Nehru made a difficult decision and choice the path of non-alignment. However, the growing pressures both internal and external factors as well as the changing nature of the strategic environment compelled India to rethink about nuclear weapons.

In the above context, the work analyses the evolution and transformation of India's nuclear policy. The paper also analyses the historical evolution of India's nuclear policy from 1940 to Pokhran II. Further, the paper also examines India's nuclear weapons development and reason behind its programme. In this context, the paper tries to answer some of the question which emerged such as: what are the factors that forced India to go nuclear test in 1974? Why India paused its nuclear programme after 1974 test until second Pokhran test in 1998?

Towards an understanding the process of evolution of India's nuclear policy, it is primarily necessary to mention the methodology of present work that has been adopted in order. The paper begins with focus on the historical background of the evolution of India's nuclear policy starting late 1940s. Therefore, the present work follows the historical and analytical method. For proper understanding the government



stance on India's nuclear weapon programme and strategies the work also analysed some of the government reports such as: Department of Atomic Energy (DAE) report, India's nuclear doctrine of both draft report of NSAB and 2003 official nuclear doctrine, Defence Research and Development Organisation (DRDO) report, Ministry of Defence report on defence budget. The work also follows a descriptive analysis in order to understand the changing nuclear policy of India. So, the present work is based on both primary and secondary data.

The Nehru Period: 1940's to 1960's

India's nuclear programme can be trace back from 1940's. Jawaharlal Nehru, the first Prime Minister of India, had played an important role in growth of nuclear weapon programme in India. Though Nehru was very vocal against the nuclear weapon at the initial stages but never denied for future development of the nuclear weapons. His ideas on nuclear weapons and capability were basically aimed at three things: the utility of nuclear weapon, disarmament and nuclear energy as a source of electricity (Karnard, 2008: 37-39). But India's indigenous effort in nuclear science and technology was initiated much before independence. The first step towards the establishment of nuclear weapon programme was initiated by Dr. Homi J. Bhabha in March 1944 when he made a proposal for foundation of nuclear research institute. Eventually on 15 April 1948, Under the Jawaharlal Nehru, Independent India passed the Atomic Energy Act which led to establishment of the Indian Atomic Energy Commission (IAEC). Since then, Indian nuclear programme has gradually developed that lead to establishment of nuclear weapons capability.

At this juncture, at the global level, the first serious and constructive steps were taken up to control over nuclear proliferation. However, developed countries like USA had conducted its hydrogen bomb test while Great Britain exploded its first atomic bomb in December 1953. Afterward, the American President Eisenhower proposed the Atom for Peace Plan. This proposal was something discriminatory in nature for the developing countries as it discourages to develop the atom bomb for them. In 1954, however, the Indian nuclear program began to move in a direction that would eventually lead to establishment of nuclear weapons capability. On 3 August 1954 the Department of Atomic Energy (DAE) was created with Dr. Homi Bhabha as Secretary (Dutt, 2012: 246). It was the personal relations between Prime Minister Jawaharlal Nehru and Secretary of DAE initiated the nuclear programme in India. In 1955 for the first time India government constructed it first nuclear reactor, the 1 MW Apsara research reactor, with British assistance. And in September 1955, after a long discussion, Canada government agree to supply a research reactor to India.

During this period the biggest challenge in India's nuclear policy was emerged within the country itself. C. Rajagopalachari strongly opposed the Nehruvian plan of harnessing atomic energy and using as a trump card to attain 'great power status' (Karnard, 2002:204). To him nuclear programmes were 'a delusion and a snare' (Ibid: 204). Rajagopalachari deemed the concept of 'deterrence' to be 'another word for a race in nuclear armament' (Ibid: 205) and it was his vociferous opposition that prompted Nehru to craft an 'activist disarmament policy' (Ibid: 211). Meanwhile Dr. Homi Bhabha was given the permission to organize and run the nuclear programme. Hence in 1960-61, discussion with American firms was initiated for construction of India's first nuclear power plants at Tarapur.

Factors behind Development of Nuclear weapons in 1960-67

During this period India worries for China was tremendously influencing India's nuclear policy. India and China were in head-to-head lock each other over the border disputes which was rose from 1959 onward.



In fact, the growing tension between India and China leads to 1962 war between them. At that juncture one of the serious concerns of India about China was it on going nuclear programme. For the first time, India's nuclear programme was debated at parliament after the humiliation defeat by China in 1962 war.

The Shastri period: India's concern for China

On 27 May 1964, Nehru died and was replace by Lalbahadur Shastri as the second Prime Minster of India. He was a Gandhian, who opposed to pursuing the Indian nuclear option at the initial period of his tenure. It was the time when Dr. Homi Bhabha repeated reminding the government about the capability of the country to build a bomb. On 16th October 1964 China tested it first nuclear weapons. This was one of the defining moments of India in its history of nuclear policy (Subrahmanyam, 2018). According to Subrahmanyam, the former Deputy Secretary in the Ministry of Defence, the Chinese nuclear test of 1964 further pushed Indian government to go for Nuclear as it was a matter of India's nuclear security concern. However, Shastri, 'no policy change' stance triggers an unprecedented nuclear debate in India. The debates were on the morality of India possessing nuclear weapons, the Chinese nuclear test an essential military threat for India or not, the financial cost of nuclear weapons programme and whether the nuclear weapons policy would be able to provide security for India or not (Chakma, 2005: 11). But at the Durgapur Congress in 1965, Shastri faced a tremendous pressured from the party to give up his policy of nuclear abstinence and initiate a weapons programme (Ibid 252). In April 1965, Shastri gave a formal approval to Dr. Homi Bhabha to move ahead with nuclear weapons development programme.

Pakistan Factors

Beside the China's growing nuclear power, India's concern for Pakistan was another factor which further pushed India to go for nuclear weapons. Thought the root cause of the hostility between India and Pakistan can be trace back to the partition of British India in 1947 but increasing relations between China and Pakistan in mid 1960s was a major security concern for India. In 1965 Pakistani force violated the Indian sovereignty by moving into the Indian Territory in the Rann of Kutch in April. It was followed by aggressive assault on Indian side again in September 1965 in Kashmir. China supported Pakistan by supplying all kind of support while USA supplied the arms and ammunition knowing the fact those are going to use against India. Hence, in this war various powers had involved directly or indirectly. This compelled India to rethink its security policy as well as for its nuclear programme. Moreover, it was the time when China threatens India to involve itself at war by opening a new front on the Tibetan border. However, India resisted the Chinese pressure with help of USA and USSR. Because, China was an adversary of both the USA and the USSR (Subrahmanyam, 2018).

All these developments had a remarkable impact on the development of India's nuclear programme. It was at that juncture that Pakistan also started its nuclear programme with the support of China which practically happened in 1970. On the other hand, it was a period when Lalbabhadur Shastri told Homi Bhabha to go ahead with the development but to hold off testing unless he had clearance from the cabinet (Chengappa, 2000:102). On 11 January 1966 India and Pakistan had come to negotiation to end the hostilities and signed the Tashkent Declaration. However, the died of Shastri followed by Dr. Homi Bhabha at the plain clash left India's nuclear establishment without any official plan for a short period of time.

Indira Gandhi was sworn in as Prime Minister of India. There was paradigm shift in India's foreign policy as well as strategic thinking. Hence India's Nehruvian policy of opposing the development of nuclear arms



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had gradually transformed into a new emphasis. Meanwhile at the global level, international nonproliferation movement was strongly focussing on restriction of the spread of nuclear weapons. But, India voted against Nuclear Non-proliferation treaty (NPT) on 12 June 1968. At the regional level, the growing violence and confrontation between the Awami League and Islamabad in East Pakistan in early 1970s lead to a massive scale of pouring of refugees into India. At that juncture the international power like USA and China once again backed Pakistan diplomatically. It was recorded that the involvements of USS Enterprise in Bay of Bengal in Pakistani support (Nakanishi, 2013:6). This compelled India to conclude the Indo-Soviet treaty of Strategic partnership in 1971 (Subrahmanyam, 2018). In addition to it, as it mentions earlier that Pakistan developed it nuclear weapon programme during this period which was a major security concern for India.

India's Nuclear Test: 1967-1974

The efforts of development nuclear weapons became very strong the moment after Indira Gandhi came into power in late 1967. Meanwhile, India nuclear programme was headed by Dr. Homi Sethna and Raja Ramanna after the death of Dr. Homi Bhabha. They had undertaken a new effort to develop nuclear explosives. By 1970, India had developed both the capability and political motivation for conduct of nuclear test. For instance, during a debate at the Ministry of Defence (MoD) annual budget in May 1972 all political parties had demanded that India should develop nuclear weapons. Moreover, in the same year Defence Minister Jagjivan Ram informed the parliament that the Atomic Energy Commission had studied the technology for conducting underground explosion for peaceful purposed. Again, in November 1972 again Lok Sabha members inquired about the progress of the nuclear programme. In addition, there is no clarity that when Indira Gandhi had given the final decision for conduction of the nuclear test. For instance, Defence Minister, Jagjivan Ram said that 'decision was taken in 1971 while IAEC scientist Homi Setha said that it was given in 1972, but it was delayed due to the Indo-Pakistan war (Ganguly, 1999:13).

On 18 May 1974, India had finally conducted it first nuclear test calling "Peaceful Nuclear Explosion" (PNE) and code name "Smiling Buddha" was given. It is impossible to say with certainty, what were the prime motivating factors for the decision to go ahead with the Pokhran test (Roka 2014:4). It was not strongly condemned by various nations, only France releases it congratulation towards India. It is interesting to note here that China and USSR maintained it silent about India's nuclear test. India fear for economic sanction became reality when many countries impose it on India after the test. In addition, the USA and Canada also cut all nuclear cooperation and assistance on India and left alone. Canada accused India that the later diverted all kind of nuclear assistance given to New Delhi by them for weaponisation which was means for civil purposed. Similarly, US also cut short all economic as well as military assistance given to India. In 1976 through Symington Amendment Jimmy Carter administration further increased restriction on supplement of nuclear materials to non- NPT nations (Ganguly, 1999:15).

Period of Restraint: 1974-1989

After 1974 Peaceful Nuclear Explosion, India nuclear programme was moved towards the phase of policy ambiguity. It would be wrong to says that it was totally rejected. In fact, the perfection nuclear weapons and missiles delivery technology was never stopped. However, India's nuclear programme was affected for short a period of time by various challenges that emerged from domestic, regional as well as from the international level.



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In 1975, National Emergency was declared for a period of 21 months which eventually lead to fall of Indian National Congress (INC) from power. After the emergency, the Janata party came to the power. Moraji Desai became the Prime Minister of India. He was viscerally anti-nuclear and opposed the ideas of India having a nuclear weapon. Though there were an expressed for nuclear weapon at high official level but he expressed his undesirable for the use of the nuclear technology even for the civilian purpose (Subrahmanyam, 2018:258). At that Juncture, India under Moraji Desai supported in principle nuclear weapon free zone at the global level. Bu the situation changed in 1979 when Atal Bihari Vajpayee, Foreign Minister reported to the Parliament about the Pakistan nuclear programme. He disclosed that Pakistan nuclear programme was not a peaceful one (Ibid: 259). This invoked US government and imposed sanction on Pakistan by invoking Symington Amendment. And also, after the tremendous pressure from USA, France cancelled the contract for reprocessing nuclear plant in Pakistan.

Meanwhile the Moraji Desai Coalition government falls and Charan Singh became the Prime Minister. He altered Desai's policy of not acquires nuclear weapon (Ganguly, 1999:16). During his Red Fort address to the nation, Charan Singh referred Pakistan's nuclear weapons efforts and sought for further nuclear weapon development of India. By 1980 after general election Indira Gandhi returned to power with a renewed interest in the nuclear weapons program. In January 1981, Indira Gandhi reappointed Ramanna as Director of BARC and authorised him to go ahead with preparation for an underground test. The construction work begins on testing the two weapon designs that had been developed in the intervening 6 years the fusion boosted devices and the compact pure fission device. The weight of the fission device had been shrunk from 1400 kg to 170200 kg, along with many other improvements in its components. Construction work continued on the test shafts into May 1982. This work was quickly detected by U.S. satellites (Subrahmanyam, 2018:261).

While speaking in Rajya Sabha Mrs Gandhi said that India would conduct test as long as it fulfils the national interest. She further argued that India should not be snooze, if Pakistan tries to make bombs with the help of China (Chakma, 2005:34). It is argued that the pressure coming from the Afghanistan Crisis pushed Pakistan to develop its fissile material in Kahuta nuclear plant which is a major security concern for India. Moreover, at that juncture, the arms transformation to Pakistan by the United States was renewed which further increase India's demand for nuclear weapons. Many Indian strategic thinkers argued that India need to have nuclear superiority over Pakistan. For the first time a leader of the Indian armed forces, Army Gen. K.V. Krishna Rao, was pushing for the nuclear option. Because Pakistan was on the process of developing nuclear weapons with the help of China and also developed ballistic missile during this period.

However, the pressure was on Mrs Gandhi for not to conduct the test from the US government after Washington came to know about the nuclear construction plan of BARC in manufacturing bomb components, including the preparation of 12 kilograms of plutonium metal (Perkovich, 1999:228). On the other hand, both Gandhi and the Reagan administration were working on a reconciliation to improve India-U.S. relations. In addition, Prime Minister Indira Gandhi was very much aware of India's vulnerability to likely international repercussions such as economic sanction. For this, Mrs Gandhi introduced a new element into the nuclear decision-making process. And she also revokes her decision for nuclear test.

However, after cancelling the test Mrs Gandhi authorized India's first attempt to weaponize a nuclear weapon in 1983, which could be delivered by the military in wartime and develop the necessary support systems so that it would be integrated into military operations. It is not enough to have a nuclear explosive device, or even to install it in a bomb casing with suitable fuzzing and safety systems. Aircraft have to



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modify to carry it, and techniques for everything from delivery, to routine maintenance, to security must be developed. In late 1982 Arunachalam began a project to develop these capabilities. Dr. Nagapattinam Sambasiva Venkatesan, who had previously directed the laboratory which developed the bomb's high explosive implosion system, had now moved to the Armament Research and Development Establishment (ARDE) in Pune and was given the task of developing the ballistic case for the bomb. Arunachalam also contacted Air Marshal Chandrakant Gole, the deputy chief of air staff, to arrange for the adaptation and testing of a Jaguar combat aircraft for the role of nuclear bomb delivery. Unfortunately, the Indian Air Force was not informed about the project. The modified aircraft thus remained entirely outside the regular military system (Chengappa, 2000:284-285).

In 1983, there was turned in India nuclear programme from testing nuclear weapons to developing an Integrated Guided Missile Program (IGMP). For instance, the establishment of ambitious ballistic missile program in 1983 under the leadership of Venkataraman and Arunachalam. This development led to the successful development of the short range Prithvi missile, and the long-range Agni missile series. India had also developed a significant level of missile related technology as a result of the Department of Space's solid fuel Satellite Launch Vehicle (SLV 3) work begun in 1973 and first successful test launched in July 1980 and as a result of 'Project Devil' and an attempt to reverse engineer the Soviet SA2 liquid fuel surface-to-air missile by the Defence Research and Development Laboratory (DRDL) at Hyderabad. This latter project initiated under the leadership of Dr. Dr. Basanti Dulal Nag Chaudhuri (INWP 2001).

There was no indication from the Indian Government about nuclear implications of the IGMDP at the time of its launching. However, questions were raised and suspicions were expressed with regard to the inclusion of the Agni and Prithvi in the programme. Agni's inclusion in particular was significant indeed, because without nuclear warheads on this missile, its development would make little sense. Questions were also raised with regard to the inclusion of the Prithvi in the IGMDP. This missile system could be used as a conventional explosive delivery vehicle although it would be more lethal, if nuclear warheads were tipped on it. A retired Indian army officer has observed that 'Prithvi's potential as a decisive weapon of war is not when it carries conventional munitions load, but when it is tipped with a nuclear device (Chakma, 2005:34). This paradigm shift in its nuclear policy was resulted from accretion of technological capability, long-term need for advanced indigenous tactical and strategic weapon platforms, and a desire to acquire weapons whose prestige and military role had been determined by the major powers whose stature India sought to share (Perkovich, 1999: 244 - 245). In addition, in early 1982 India successfully developed a technology which eventually leads to SLV-3 tests (INWP, 2001). The IGMDP included an anti-tank missile-Nag, two surface-to air missiles-Akash and Trishul. There was no indication from the Indian Government about nuclear implications of the IGMDP at the time of its launching. Meanwhile the internal security problem that emerged in that period such as armed insurrection in Punjab led by Sant Bhindranwale, who made the Sikh's sacred Golden Temple of Amritsar his headquarters and fortress in 1982 pause the India Nuclear programme for while. On 5 June 1984 "Operation Blue Star" was carried out by the Indian Army under the command of Gen K. Sundarji

Rajiv Gandhi Period:

The 'Operation Blue Star' inflamed Sikh anger after 'which led to assassination of Indira Gandhi by her Sikh bodyguards on 31 October 1984. After Rajiv Gandhi came to power, he proposed 'Action Plan' for nuclear weapons free and non-violent World Order in the United Nation General Assembly (Das, 2015: 12). Rajiv Gandhi initiated the nuclear confidence building measure with Pakistan. For instance, India



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and Pakistan also sign an agreement not to attack each other with nuclear weapons but the treaty was not ratified until 1991. During his U.S. visit in 30 October 1985, he pressed the U.S. government to bring pressure on Pakistan in order to prevent it from going nuclear. At that juncture, in India there was a serious debate among the leaders over India's future nuclear programme. A Task force consisting of Admiral Tahliani, Lt. Gen. Sundarji, Vice Chief of Army Staff, Vice Admiral K.K. Nayyar, Air Marshal John Greene, Dr. Chidambaram from the Atomic Energy Department, Dr. A.P.J. Kalam and others favoured for future nuclear development of India particularly for deterrence. Though India slows down its nuclear programme in this period but the technological development never stops like earlier.

But Pakistan was hidden its procurement efforts for building a military nuclear programme and its significant progress towards acquiring nuclear weapons capability. To add this, A.Q Khan stated in an interview on 14 March 1985 that Pakistan could carry out an atomic explosion, if required. On 11 July 1985 the American ABC television network reported that Pakistan had successfully tested the non-nuclear triggering package for a nuclear weapon. In this context many political parties felt that India should build nuclear weapons to counter Pakistani capability. Prime Minister Rajiv Gandhi on 4 May 1985 at All India Congress Committee (AICC) assured that his government would be looking into various aspect of development of nuclear weapons. In fact, Rajiv Gandhi did build a robust nuclear option during his time in office (Chakma, 2005:37).). He ensured that India kept of latest technologies in order to maintain a credible nuclear deterrence. This was indicating that India's energetic pursuit of a viable nuclear option. Indian scientists were also beginning work with the approval of Rajiv Gandhi on thermonuclear weapons in late 1984 to early 1985.

In 1986, soon after General Sundarji took over charge as Chief of Army Staff, he launched an 'Operation Brasstack' – largest corps level exercise. According to Subrahmanyam, Pakistan had mistaken the operation as a cover for an attack on them. This eventually exposed Pakistan nuclear weapons to the world. On 28 January 1987, Dr. A.Q. Khan (Pakistani Scientist) told to Dr. Nayar that Pakistan had nuclear weapon and would use it without any hesitation to counter Indian aggression (Subrahmanyam, 2018).

Therefore, the Brasstack Crisis of 1986 led to war cloud between India and Pakistan over Kashmir in late January 1990. The separatist movement had begun to affect every aspect of life in Kashmir which brought economic activity to a virtual standstill. The fighting between militants and security forces transforms into Indo-Pakistani conflict. In the early February, opposition politician called on the Pakistani government to pursue a Jihadi in Kashmir and one urged it to build nuclear weapons in order to meet the Indian threats (Hagert, 1996: 96). According to intelligence report Pakistani government played active role in supporting the Kashmir protest and also provide training camps and arms support to rebels. On other side, China had continued to support Pakistani nuclear weapons programme. In response to this development several Indian scientists express it opinion to restart the nuclear weapons programmes. In facing this harsh reality Rajiv Gandhi's appears to have given the go ahead for nuclear programme to the DRDO under Dr. Arunachalan and Dr. P.K. Iyengar (of the BARC) after the authorization the nuclear scientists and engineers at the BARC and the DRDO laboratories to refine nuclear weapons designs by reducing the size and weight of fission device while increasing their explosive yields. (Subrahmanyam, 2018:267). Same year on month of May, India successfully tests fire Agni missile.

The successful test and the development of 1500 km range Agni missile was considered sufficient to deter threat posed by Pakistan in 1980s and 1990s. These missiles equip the army's 333 Missile Group, but do not constitute either a conventional or nuclear ready force. The missile can carry conventional high explosive device or warheads. Some 200 of these missiles are being retained for dual convention- nuclear



use short range contingency (Karnad, 2008:78). Where the long-range missile Agni-III has a range of only 3500 km, which is shore to target much of China. Till now the DRDO had developed Agni series of Short-Range Ballistic Missile and Intermediate Range Ballistic Missile about to 1000 km and the intercontinental ballistic missile (ICBM) more than 5000 km. India's Agni-V is the only ICBM which can reach pulse five thousand kilometres. DRDO also trying to developed Agni-VI which can reach more than 8000 km with multiple warheads.

Changing Strategic Environment and India's nuclear programme: 1990-1998

The period of early 1990s has been the most significant time in the history of world. The end of the Cold War and breakup of the USSR changed the world order from bipolar to unipolar world with U.S. as the only soul super power. This development also brought a dramatic changed in strategic environment in all across the world. During this period, nuclear proliferation has been remains as a source of concern for every nation in the world. But disarmament process was also very much present. For instance, the United States and Russian Federation had entered into an agreement for reducing their nuclear arsenal up-to 3,500 strategic warheads by 2002-2003. The strategy is to maintain a modern, viable and diversified strategic arsenal. Similarly, France also agrees to reduce its nuclear arsenals, but China has refused to consider disarmament till the other nuclear weapons state reduced their weapons holding to its own level. Hence, the global nuclear disarmament policy still remains quite doubtful. In 1995, the world was further divided permanently into nuclear haves and have-nots and demonstrated that the five Nuclear Weapons States (NWS) were unwilling to negotiate nuclear disarmament (Mishra, 2002:12).

It was crucial period for India's nuclear programme too. For instance, after the disintegration of Soviet Union, India loss its traditional strategic ally and reliable arms supplier. Moreover, the security guarantee implied in the 1971 Indo-Soviet Friendship Treaty was rendered practically invalid in the new international order. On the other side the United States and India were never strategic partner and the structural Changed of international system after cold war intensified India's security concern. At that juncture, strategically speaking, India was worried about the strategic partnership of China and Pakistan in the post-Cold War world order. In addition, in late 1995, New Delhi was worried about Chinese deployment of its nuclear warheads in Tibet pointing towards India (Chakma, 2005:40). These developments of strategic situation, following China's nuclear weapons technology assistance to Pakistan, heighten the existing security situation of the South Asian.

India also faced a crucial security situation when Foreign Secretary of Pakistan, Shahriar Khan, claimed in an interview with the Washington Post that Islamabad has built necessary components and assembles at least one nuclear device. In addition, a leaked American Intelligence report in 1993 concluded that China had supplied M-11 missile deliver to Pakistan. The situation was again aggravated in August 1993 when Pakistani PM Nawaz Sharif alleged that Pakistan possessed an atomic bomb (Ibid:40). Hence many of Indian strategic thinkers began to believe that the nuclear program should be significant part of an independent and self-sufficient defence system. According to Perkovich, India nuclear programme at that time was guided by fours principle such as:

- 1. No first use
- 2. Civilians should exert total control over the military in policy and plan
- 3. No engage in arms racing
- 4. No single sector-partisan political leaders, the scientists, the bureaucracy, or the military-should be able to drive nuclear policy



(Perkovich, 1999: 330)

Approach toward the Renewal of NPT and CTBT

Another crucial problem that India encountered in mid-1990 was when the nuclear weapon states moved to permanent status of the Non-Proliferation Treaty. Most of the international community were in opinion of imposing sanction to those countries who against universalization of NPT. Many international conferences on NPT had occurred. This idea of universalization of NPT may put India in strategic and security vulnerability in international security. But India did not participate in this conference, and face major challenges from great power to sign the treaty (Chakma, 2005:43). However, India's security demands were to stay out from the treaty. During this period one can also determine about the pressure that was coming from the U.S. on India's missile programme. For instance, the U.S. had pressured Russian Federation to deny India's cryogenics engine transfer request for the civilian space programme. As a matter of fact, the US was not happy with India's decision on NPT. This resulted to the slowdown of India's nuclear programme in one way or other. After the treaty was extended, only India, Pakistan, and Israel remained outside the treaty.

The major factors which were influence the India's security environment after the NPT is 'Brown Amendment'. The amendment was introduced by the Clinton administration in 1995. The Brown amendment allowed the provision of economic and some military assistance to Pakistan without any attached conditions. Despite vigorous opposition from senators committed to non-proliferation, the amended bill was passed. The passage of the Brown amendment, which led to a renewal of up to \$368 million in U.S. military assistance to Pakistan, inevitably provoked Indian security concerns (Ganguly, 1999:22). The renewal of American arms transfers to Pakistan was led to a larger U.S. security relationship with Pakistan. On another level the Indians were anxious about the pressures that would be brought upon them in the wake of the extension of the NPT

Another important factor that had a serious implication on India's nuclear programme in 1996 was over the Comprehensive Test Ban Treaty (CTBT). When the CTBT come for universal non-proliferation of nuclear weapon in world but India view as a discriminatory in nature. This foreclosed India's option of test and credible nuclear deterrence. It clearly shows that India could no longer have any assurance of its security in the absence of her own independent nuclear deterrence is credible. It clearly defines the India's weakness of security environment in the Asia as well as in international arena. On 20 June 1996, during the Conference on Disarmament (CD), for first time the Indian Ambassador stated that the nuclear issue is a national security concern for India (Subrahmanyam, 2018: 274).

The two years of extensive negotiation in 1996, the CTBT process gathered steam in Geneva. Although, India had been one of the principal sponsors of the nuclear disarmament in the initial years. But New Delhi had three objections to the treaty. Firstly, the Indians insisted that they would accede to the treaty only if the nuclear weapons state agreed to a time bound plan for universal nuclear disarmament. This position was little more than a manoeuvre. Secondly, that the treaty could came into force only after forty-four countries that had on going nuclear research and facilities, ratified the treaty. As a state with an on-going but largely untested nuclear weapons programme, India would come under enormous pressure to accede to the CTBT (Ganguly, 1999:31).

The third objection was more substantive; it dealt with the treaty allowance of computer simulation of nuclear test and hydro nuclear test. In the Indian view, the failure to close these two-technology mistake undermined the larger goal of taking steps toward the elimination of nuclear weapons. In the end India



could not block the treaty from the UN Disarmament Commission to the General Assembly in New York and the treaty was passed on September 10, 1996 (Ibid:32). Consequently, the inevitable failure to include such objective would give India option to remain outside the treaty.

A year later, in South Asia many more evidence had surface on Pakistan-China proliferation. Under these circumstances, Indian nuclear tests became inevitable and they were triggered by the Ghauri missile test by Pakistan on 6 April 1998. Moreover, the Indian public security discourse at this stage was that India maintains an adequate nuclear preparation as a precaution to confront an uncertain strategic environment. However, the NPT extension and CTBT encouraged Indian nuclear scientist to advance nuclear weapon development before prospective test ban and fissile material production ban treaties were passed. This meant that if India's strategic security interests and the desires of its nuclear scientists required testing of nuclear weapons; India would have to move quickly before facing enormous external pressure.

Returning to Pokhran

From 16 February to 7 March 1998 Indian parliamentary election was held in a phase manner. The BJP election campaign was marked by some unfortunate grandstanding, like the Prime Minister candidate Vajpayee declared that BJP government would 'take back that part of Kashmir that is under Pakistan occupation'. Moreover, the BJP declared it intension to exercise the option to induct nuclear weapons on 10 March 1998. When the election results are announced the BJP had won 26 per cent of the popular vote and gained 250 seats. Atal Bihari Vajpayee became the Prime Minister of India. The BJP wasted no time in making clear its intention to deploy nuclear weapons.

On 18 March 1998, the day before he was sworn in as Prime Minister Vajpayee declared that there is no compromise on national security. He also expressed that the India's nuclear options in order to protect security and sovereignty of the country. It is argued that the Prime Minister Atal B. Vajpayee consulted with Abdul Kalam the day before he was sworn in to office and asked him to join the cabinet. Though Kalam declined but indicated that he was needed at his current post to support the nuclear program. On March 1998, PM Vajpayee consulted again with both Kalam and AEC Chairman R. Chidambaram for conducting nuclear tests. At the conclusion of the meeting Vajpayee told them to be ready to test, but made no commitment to conduct tests (India's Nuclear Weapon Programme, 1998).

On 28 March the BJP led coalition passed a vote of confidence in Parliament and cleared to go forward for nuclear test. On 9 April Vajpayee met again with Kalam and Chidambaram and asked how long it would take to conduct tests, Kalam indicated that tests could be conducted within 30 days' time. The decision was communicated with Brajesh Mishra, Principal Secretary to PM Vajpayee. The next day, the scientists reviewed preparations at Pokhran. Thirty days from 10 April was 10 May, but President Narayanan was scheduled to be touring Latin America from 26 April and 10 May.

Further, attempted to accelerate the tests by testing before 26 April but Kalam and Chidambaram provided Mishra with the date 11 May as the earliest practical date (India's Nuclear Weapon Programme, 1998). At that time there was a rumour that Pakistan has successfully developed Ghauri missile and ready for test on April 6, 1998. Finally, India tested five nuclear devices at the Pokhran underground testing side after the PM Vajpayee given the green signal for explosion. On May 11, 1998 India On 11 May 1998, India tested three nuclear devices which was followed by testing of two sub-kiloton devices on 13 May that were designed to provide data for additional computer designs that would enable India to increase the capacity of its nuclear arsenal. After the test, Chairmen of AEC stated that India's nuclear weapons were totally for defensive purposes. After the test PM Vajpayee have also written a letter to the U.S. President



Bill Clinton, in which he wrote about the security threats faced by India in the South Asian nuclear environment (Roka, 2014:5). PM Vajpayee also declared India is a nuclear weapons state and declaring policy of 'no-first-use' and 'minimum credible deterrence'.

Conclusion

The decision of India's nuclearization was influenced by the multiple factors. Since the year 1947 there are many factors which were influenced or forced India to developed nuclear infrastructure to achieve technological development, scientific sufficiency and the will to transfer India into a great power, and Bhabha decision to nuclear policy gave a path to its nuclearization. Secondly, experience of 1962 war with China and humiliating defeat and its nuclear weapons test in 1964. This both events raised the question of national security from external threats. Responded to Chinese nuclear test India adopted nuclear weapon policy, which was led to first nuclear test in 1974 at Pokhran calling 'Smiling Buddha'.

Thirdly, India slowdown its nuclear weapons programme due to international pressure, but on the other side, India never stopped research on nuclear technology and upgraded its nuclear option capabilities against Pakistan and China. Also developed missile capability by the DRDO, tested fire first short-range ballistic missile 'Prithvi', developed research on space technology by ISRO in this period. In 1990s India lost its traditional ally and left alone. After losing its traditional ally and security guaranty from former Soviet Union India think to return to Pokhran in 1998 and developed nuclear weapons. However, many argued that the Pokhran I and Pokhran II decision was developed only for its own security. But the assessment shows that both the Pokhran I and Pokhran II decision was taken because of strategic change in international system and pressured from renewed NPT and the CTBT along with external threats and challenged which India had encountered.

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