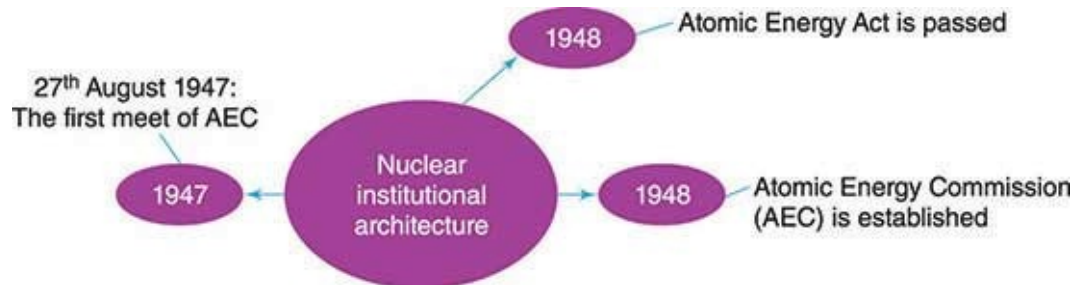


After reading the chapter, the reader will be able to develop an analytical understanding on the following:

- Why did India opt for nuclear energy?
- Nuclear institutional architecture of India
- Origin of foreign collaborations – atoms for peace and Canada
- Three stage nuclear program and energy seduction
- Nehru, NAM and Indian nuclear weapons
- Thorium Nitrate case and US tilt to Pakistan
- Creation of IAEA and India on Plutonium and IAEA
- India and Pugwash conference and shift in policy
- India and PTBT and impact of Chinese refusal of PTBT
- India and Disarmament at ENDC in 1965
- Coming of NPT and Indian behavior to NPT
- The option – Hawks and Contingency hawks
- The factors leading to rethink and Pokhran – 1 (1974)
- Approach of Desai and nuclear continuity
- India and special sessions on disarmament
- Pakistani urge and four options of India
- India's missile development and MCTR formation
- Conference on disarmament and India - 1993
- India's and NPT Review conference – 1995
- India and CTBT and Indian refusal
- Pokhran – II and nuclear weapon state
- Indian nuclear doctrine and strategic stability and
- The Realist Foundation of India's Nuclear Strategy

The Indian nuclear issue can be traced back to the time of Nehru. Nehru had exercised tremendous influence on India's nuclear thought and policy. He laid down the foundation of India's nuclear programme and its nuclear behaviour. The person other than Nehru who created a deep imprint on the Indian nuclear programme was Homi J. Bhabha. In 1939, Bhabha came back to India to establish the Nuclear Research Institute. He sought financial assistance to further Indian nuclear research and to establish a nuclear research project from the Sir Dorabji Tata Trust. He was able to convince him about the role that nuclear technology could play in the development of modern India. In 1945, the Tata Institute of

Fundamental Research (TIFR) was established, with Bhabha as its director. He based his idea of nuclear technology and energy resources on the basis that as India would progress, there would be a demand for more energy and India's conventional energy resources would not be able to adequately meet that demand. Thus, nuclear energy as an alternate and affordable option needed to be developed. In order to explore the nuclear option, nuclear reactor technology had to be understood and built upon. The government, after independence, established an institutional architecture for further nuclear research.



After India became independent it began to seek assistance from foreign nations. In 1956, the British helped India to build the Apsara reactor. In 1955, Canada provided a 40 megawatt reactor which used natural Uranium and heavy water. The heavy water was provided by the USA under a partnership called CIRUS. India chose Canadian reactors because India possessed very limited foreign exchange and uses this limited foreign exchange to purchase the only affordable reactors which Canada offered. Canada further attached a no-strings policy including on hour the Plutonium was to be used. The Indian scientists, by 1960, created fuel rods and used them for the first loading of CIRUS in 1960. The use of self-made fuel rods gave India the claim to use the resultant Plutonium for future use. In 1958, a plant named Phoenix was established at Trombay to extract Plutonium. The US, under Atoms for Peace, had declassified the procedure to reprocess Plutonium, a technique that India used at Phoenix to produce its first weapons-grade plutonium in 1964.

In 1958, the government adopted a three-phase power production plan. India would first take assistance from Canada and develop Uranium-fuelled reactors. As these reactors would operationalise, they would generate Plutonium as a by-product. In the second stage, India would develop reactors which would use Plutonium and burn Plutonium with Thorium. The burning of Plutonium and Thorium would create Uranium (U-233). In the third stage, India would use U-233 burn, burn U-233 and Thorium to produce more U-233 and energy. The foundational ideas that dominated our development discourse after independence were a heavy industrialisation model and import substitution. It was believed that this model would push India to the next stage of growth. In this model, nuclear energy was to have a core role in providing electricity. Nehru and Bhabha had a confluence of ideas at this level as they both agreed that nuclear energy can take the country forward and help in achieving its developmental goals. Thus, Indian policy makers understood that nuclear energy can be an alternative to conventional energy and can be produced at a cheap price to achieve socio-economic goals. This plan of using nuclear energy for the stated purposes was institutionalised in the Second Five Year Plan.

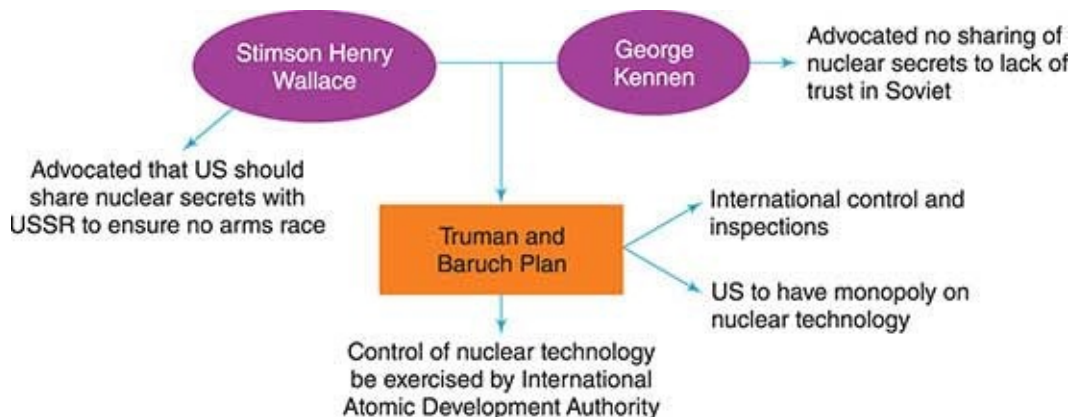


Indian Security and Nuclear Policy

The Indian Atomic Energy Act was modelled on the act that created British Energy Generation Limited. The British Act advocated tremendous secrecy over nuclear materials and the nuclear programme overall. India openly advocated for peaceful use of nuclear technology and yet the bill was adopted upon conditions of stringent secrecy on the lines of British act. The matter was raised in the Constitution Assembly Debates (CAD) by Dr B P Sitaramayya and S V K Rao. Both advocated the need for clarification about whether India could at all apply secrecy even for the peaceful programme or whether India should harbour intentions of running a secret military programme. Nehru, under pressure, conceded in CAD debate on 6th April, 1948, that he did not know how to distinguish between a civilian and a military programme. In fact, S L Saksena argued that India should and must have nuclear weapons to prevent war. Nehru, while addressing both the CAD and the Parliament, agreed that India needed nuclear energy for peaceful purposes whereas Saksena asserted that the association of atomic energy and nuclear weaponisation is unavoidable. However, Nehru certainly did not clampdown the option for subsequent heads of state to establish the initiatives for nuclear weapons and intimately linked nation building to power assertion.

India and Baruch Plan – 1946

India used the time period of 1946 to oppose any restraints in the use of nuclear technology for peaceful use. In 1946, the US had proposed Baruch Plan (propounded by Bernard Baruch). The aim of this plan was to ensure the relinquishing of international control of weapons to the UN. After Hiroshima and Nagasaki, as the Cold War emerged, two groups emerged in the US.

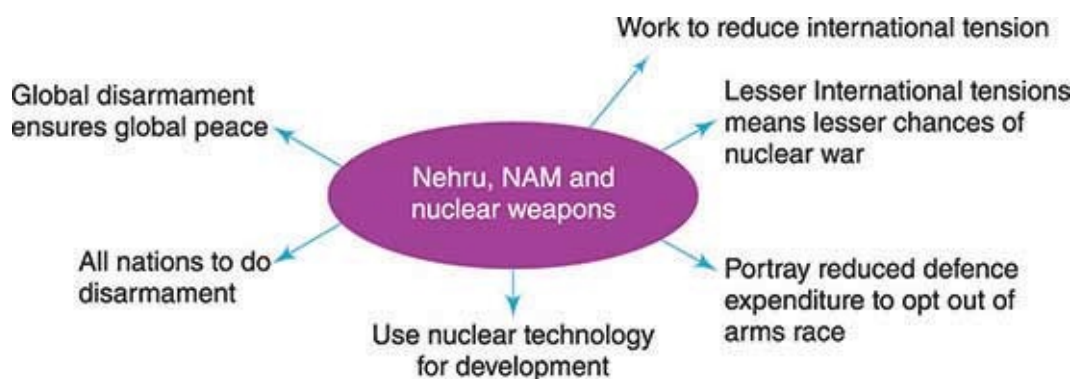


India perceived the Baruch Plan as an extension of the imperialist ideology and reacted to the idea of international ownership at the UN General Assembly and stated that all nations have a right to explore nuclear technologies for peaceful use.

An amendment was made for the Atomic Energy Act 1962. The act reiterated the Nehruvian commitment of using nuclear technology for peaceful purposes only. Nehru had formed the core policies of nuclear energy in this regard.



The invention of the Hydrogen bomb in 1954 not only helped India develop and refine its attitude to disarmament but also laid the foundation for India to oppose nuclear weapons.



In the subsequent time period, Bhabha began to establish links with France, Britain and US and initiated cooperation on reactor design and theory. The aim was to develop mastery for research reactors.



Thorium Nitrate Case

In 1953, India decided to ship an export to China containing Thorium Nitrate, which is used as nuclear fuel. As the US was providing assistance to India under Atoms for Peace at the nuclear level and this support was domestically governed by the Mutual Defence Assistance Act of 1951, it created some issues. The US Act said that if the US supplies any nuclear materials to any country, then the recipient country cannot trade materials given by the US with Soviet satellite states or the USSR. The US, therefore, opposed India's bid to sell Thorium Nitrate to China. India asserted that it is not bound by US conditions or laws. Later, a compromise took place and the US allowed the existing shipment be sent to China.

As time progressed, the Thorium nitrate issue (as seen in the case above) added some strain in India-US relations and the US thereafter began to cement its alliance with

Pakistan. However, even as the US did so, Eisenhower assured India that the US would ensure that Pakistan does not use its aid against India. The US also gave further assurance to India that it would be ready to give military assistance to India but in 1954, after the SEATO was created, India politely turned down the US request, thereby asserting its sovereignty.

In 1953, Eisenhower, in the UN General Assembly announced the launch of Atoms for Peace initiative as also the subsequent establishment of the IAEA to assist other nations in peaceful use of civilian nuclear technology. Though India was sceptical of the IAEA, it continued to pitch for total elimination of nuclear weapons and advocated nuclear technology be only used for peaceful purpose. It also advocated that no country should dominate the IAEA and all countries should be allowed to have a full say in its functioning. The IAEA decided to establish tight safeguards over nuclear materials given to states. One of the points was Plutonium generation. The IAEA asked that Plutonium generated by states be given to IAEA, which would, in turn, allow some quantity to be kept with a country for non-military use. Bhabha opposed this policy and advanced that it was an inalienable right by a state to retain Plutonium or any other fissionable material. Ultimately, India won on this point at IAEA. A decision was arrived at that such safeguards would not affect socio-economic development of a country and India retained its right to have Plutonium for future use.

In the meantime, after the Cuban missile crises, the US, the USSR and Britain decided to work towards the reduction in nuclear escalation. In 1963, they drafted a Partial Nuclear Test Ban Treaty (PTBT or LTBT). India found PTBT a favourable draft. The PTBT asserted that there shall be complete prohibition on underwater, atmosphere and outer space nuclear testing. India ratified the PTBT, thinking that the PTBT is a step towards complete disarmament. However, China refused to conclude the PTBT, which aggravated tensions in India. In 1964, Nehru was succeeded by Shastri after his death and in the same year, China conducted a nuclear test in Lop Nur. Bhabha attended the Pugwash Conference in Udaipur in 1964. He presented that a country like China having nuclear weapons can threaten India, and India had to either go for development of a nuclear weapon or collective security. Two things emerged here. Firstly, India was trying to articulate a collective security pact with the US or the USSR for security guarantee, which especially became more relevant post 1962. Secondly, India explored the option of go nuclear. At the Pugwash conference, Bhabha gave a clear understanding of the problems lying ahead for India with a nuclear China around and effectively presented a likely course of action for India. Post-1962, India embarked upon military modernisation and sought support in defence modernisation from the US and the USSR. The USSR agreed to help India and provided the MIG-21 fighter jets to India.

The first nuclear test was conducted by China on 16th October 1964. A six-week debate in India from 16th October 1964 to 27th October 1964 brought a major shift in the Indian nuclear thought. After the nuclear test of China in 1964, days later, a pitch by Jan Sangh and Samyukta Socialist Party to allow India to possess nuclear weapons began. The debate saw tremendous pressure being exerted from the opposition parties. Though Shastri continued to follow Nehruvian line, he also continued to accelerate military rebuilding of India. As domestic pressure grew, Shastri, on 27th November, 1964, announced the authorisation of subterranean nuclear test in the Parliament. The period till 1965 saw

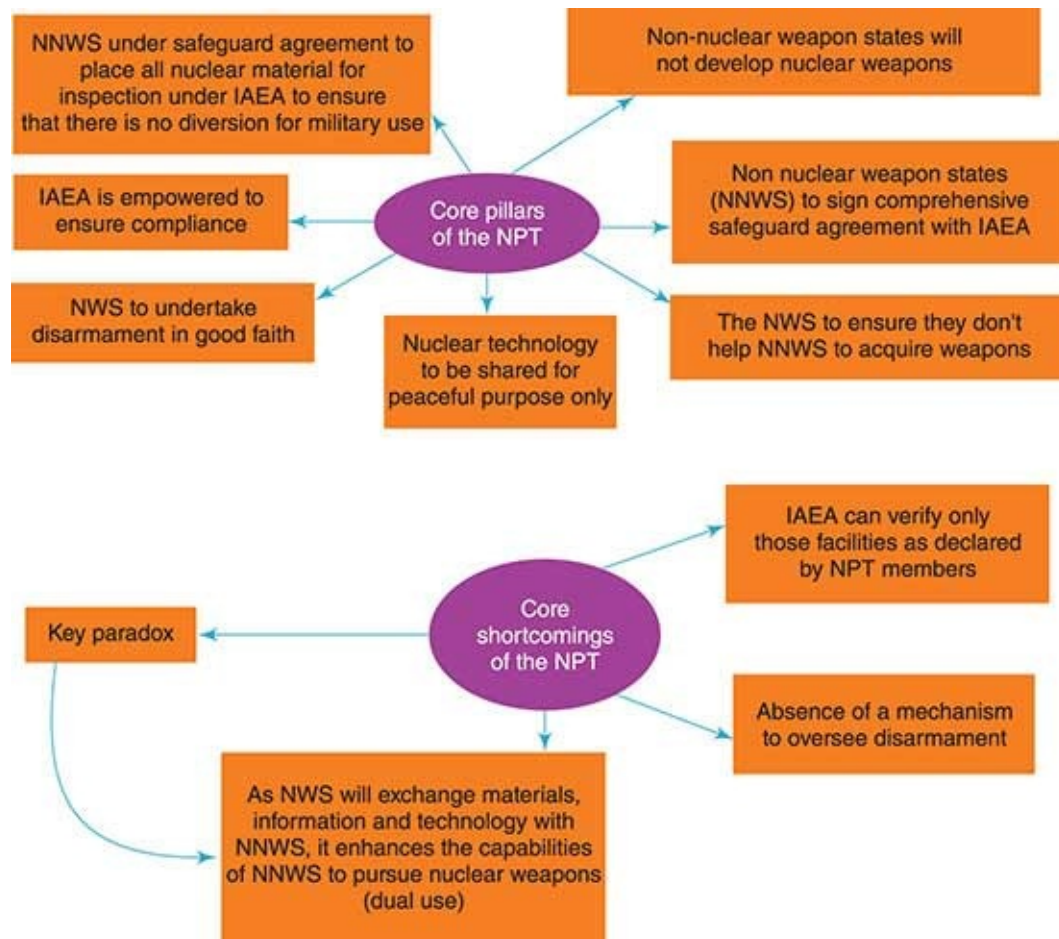
Indian scientists debating costs and financial implications for the same. Bhabha also believed that a nuclear India would serve as a triumph for the third world and would strengthen democracy in Asia. The initial idea of a security guarantee could not work out as the US continued with its alliance with Pakistan and India's own non-aligned credentials would not have favoured an active relationship with either the US or the USSR. The 1965 Indo-Pak war created a wedge between India and the US. In 1965, India presented a five-point proposal to the Eighteen Nation Disarmament Commission (ENDC), which had been established in the same year to negotiate a nuclear Non Proliferation Treaty (NPT). India was one of the eight non-aligned nations, along with five the US allies and five Russian allies that were part of the commission. India, at the ENDC, advocated that all 18 nations freeze nuclear weapon production and halt production of delivery systems, which would be the only move that would ensure that Non Nuclear Weapons States (NNWS) would not go nuclear. India also clarified that a security guarantee could not deny nuclear weapons to NNWS and that only a total disarmament by Nuclear Weapon States (NWS) can give assured satisfaction to NNWS. India also pitched that a global approach to disarmament is needed. On 24th January 1966, Homi J Bhabha was travelling to Vienna on Air India flight number-707 (flight was from Mumbai to New York). The CIA of U.S.A. had planted a bomb in the cargo panel of the flight. The bomb exploded mid air and the plane crashed into Mont Blanc mountains in the Swiss Alps. In authors interaction with a senior government officer serving in R&AW, the CIA had given the task to its officer named Robert T Crawley. The CIA wanted to eliminate Bhabha as he was the brain behind the Indian Nuclear bomb.

The ENDC was followed by the NPT in 1967. The NPT as a treaty stated that the world will be divided into NWS and NNWS. The NPT said that the countries that have tested a NW (nuclear weapon) before 1st January, 1967 were to be called NWS. The countries that had not tested a NW before the date fixed were thereafter labelled as NNWS. The NPT stated that NWS would not increase their nuclear arsenal and would undertake gradual disarmament. The NNWS, on the other hand, would not procure nuclear weapons. The NPT clarified that there shall be a review of NPT 25 years from the date of its enforcement. The NPT also said that in order to prevent any diversion of nuclear energy from peaceful to military use, the states party to the NPT will accept the IAEA safeguards.

However, after looking at the draft, India refused to sign the NPT. India asserted that NPT is a discriminatory treaty which had divided the world into nuclear haves and nuclear have nots. India held that this distinction in the treaty is highly arbitrary in nature. India also said that the NPT as a treaty was unfair because it placed no obligation on nuclear weapon states to destroy their nuclear weapons and the gradual disarmament advocated therein was nothing more than an eyewash. The NPT had set no time frame for complete disarmament and it was clear that the gradual disarmament advocated was not to happen in the foreseeable future unless a timeline was adhered to. India clarified that under the NPT, if NWS were allowed to have a nuclear weapon, it would be a threat to India. Based upon these reasons, it refused signature to NPT. The NPT was opened for signatures in 1968 and finally enforced in 1970. The NPT created an impression that the emerging powers would not be allowed to have nuclear weapons and the monopoly over nuclear weapons was being legitimized by the superpowers.

Core pillars of NPT and Shortcomings of the NPT

It is imperative for us to clarify certain concepts related to the nuclear non proliferation treaty and provide a glimpse of the nuclear fuel cycle. The NPT is based on certain core pillars. They are explained in the diagrams below:



An explanation of the nuclear fuel cycle is warranted in this regard. The diagram below will help.

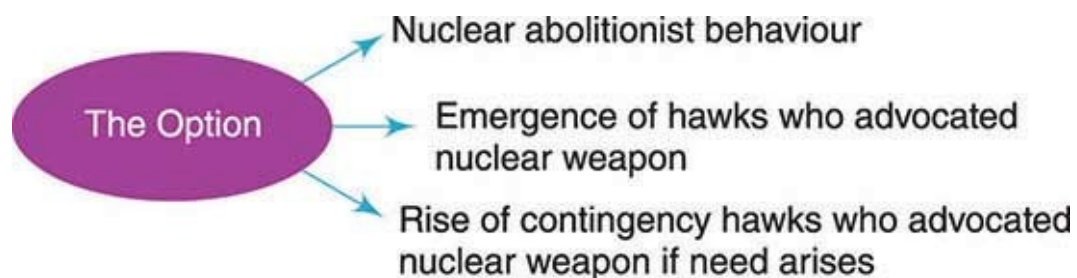


The Uranium that exists in nature is extracted from the ground. The naturally occurring Uranium is called the Uranium-238 isotope. In this isotope, the fissile material, that is Uranium-235, is about 0.7% is just enough to sustain a nuclear reaction. Since Uranium-235 only constitutes a meagre percentage of the fuel, more amount of fissile material is required. The naturally occurring Uranium is leached using chemicals to prepare the yellow cake. The transformation of yellow cake is brought about using Uranium hexafluoride gas. As the concentration of Uranium-235 increases, it becomes ready for generation of nuclear energy. The enriched Uranium is grinded into power form. The powder is further processed to produce ceramic pellets. The ceramic pellets are put inside the fuel rods to power the reactor core. After the usage of Uranium-235, Uranium-238 and Plutonium thus generated are then kept in the spent fuel pool separately. The Plutonium and Uranium-238 are then further reused thereby completing the fuel cycle.



For a period of time, the countries that had nuclear weapons enjoyed a wider political clout than the states that did not possess such weapons. The nuclear weapons also provided the ‘haves’ an insurance against attacks and unbridled power in the international system. This generated a sense of insecurity that eventually compelled some states to secretly build up an insurance policy by acquiring nuclear weapons. Iraq and North Korea, in 1990s, were able to acquire nuclear weapons. In 1991, the US used the context of the Iraq–Kuwait war to invade Iraq. Post the Iraq–Kuwait conflict, the UN resolution 687 forced Iraq to declare all nuclear facilities and allow IAEA inspections. The subsequent creation of the United Nations Special Commission was given power to eliminate the weapons of mass destruction that Iraq possessed.

At this time when Indira Gandhi was in power as the Prime Minister of India, there were again calls for the nation to establish a nuclear weapon arsenal. However, India restricted itself to peaceful nuclear use only. Stephen Cohen remarks that the period of the late 1960s in India at nuclear level was called ‘the option’.



Indira Gandhi focussed largely on domestic economy. As the NPT unfolded, India aptly understood that NPT intends to augment nuclear apartheid. Certain events also furthered India’s urge to think about nuclear weapons. Firstly, in 1971, India and the USSR signed a Treaty of Friendship and Cooperation, which gave India Soviet support. Secondly, after 1971 Indo–Pak war, the US undertook a rapprochement with China and also helped China get a permanent seat in the UN Security Council. In December 1971, when the Indo–Pak war in East Pakistan broke out, the US dispatched USS Enterprise in Bay of Bengal to support Pakistan. This made India rethink its post war situation.

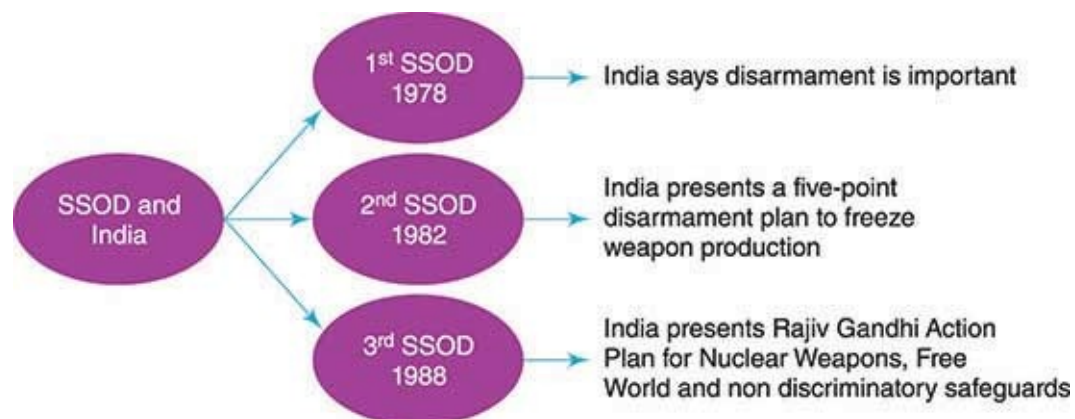


India conducted a subterranean nuclear test at Pokhran in 1974. It is also known as Pokhran-I or a Peaceful Nuclear Explosion (PNE). Considering the fact that it was a subterranean test where sub-criticality was not achieved, India could not proclaim itself as a NWS.

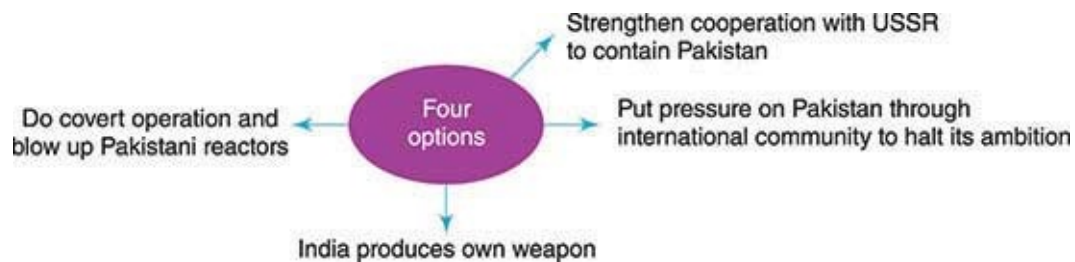
After Pokhran-I, the US and Canada suspended all support to India and the Nuclear Suppliers Group (NSG) was formed in 1975. A London Club is also formed. Both groups are formed to isolate India. Domestically in India, emergency was imposed, which was followed by the Janta Party government in 1977 led by Desai till 1980. Desai reviewed India's nuclear policy.



By the time Indira Gandhi came back to power in 1980, reports of Pakistan having acquired nuclear capability were going around. The United Nations General Assembly, on the request of the developing countries, launched a special session on Disarmament (SSOD) in order to achieve global disarmament. The first SSOD meet happened in 1978 and reaffirmed the need for disarmament. At the end of first SSOD, the General Assembly established a Disarmament Commission comprising of all UN members. The second SSOD happened in 1982 but failed to establish consensus despite an urgent need for disarmament. The Third SSOD in 1988 also failed to establish a consensus.



Zulfikar Ali Bhutto, then head of state of Pakistan, acquired Saudi Arabian financing for nuclear weapon. The most important reason for Pakistan's going nuclear was India's already having done so. Pakistan perceived its nuclear capability as a bargaining chip in the Kashmir in future. Indira Gandhi in the Parliament accepted Pakistan's right to go nuclear but maintained that India had an edge on "all aspects" over Pakistan.

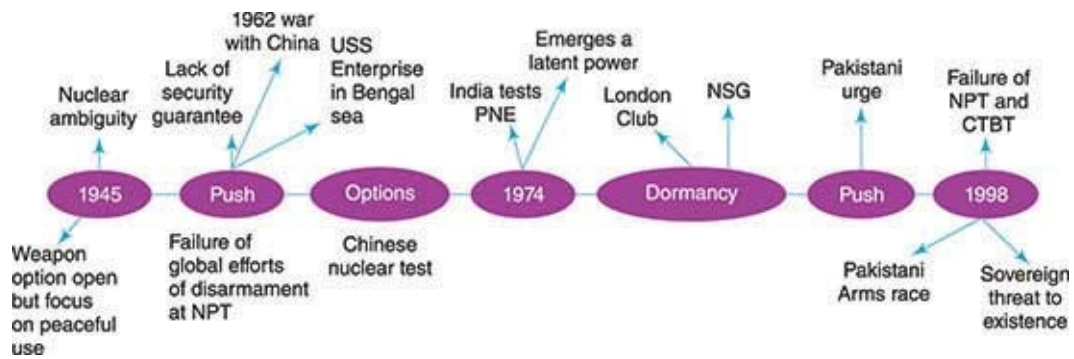


Indira Gandhi adopted a wait and watch policy. Though reports do suggest that she planned to test nuclear weapon in 1982, when US satellites captured images of the nuclear test preparations by India, the idea was immediately dropped. In 1983, India launched the Integrated Guided Missile Development Programme (IGMDP) to establish five guided missiles (Nag, Trishul, Akash, Prithvi and Agni). After India tested Prithvi in 1988, the

MTCR was established. During the times of Rajiv Gandhi, Pakistan continued nuclear weapon development. As Pakistan had opted for a military programme since beginning of their nuclear programme, the money was judiciously used and, unlike India, did not divert the resources for civilian use.

As the Cold War ended, the NPT review conference was slated to happen in 1995. Clinton revived the goal to have a Comprehensive Test Ban Treaty (CTBT). The end of the Cold War also saw the Indo-US rapprochement. In 1993, the Conference on Disarmament (COD) began. India participated in the COD and pitched for complete disarmament. The COD culminated in 1996 in a draft of the CTBT. The CTBT firstly banned all forms of nuclear testing, including underground testing which, as an option, had been left open by the PTBT. The CTBT made allowances for computer simulation for improvement. Under Article 14 of the CTBT, it went on to assert that all countries of the world which had nuclear technologies were to mandatorily agree to the CTBT. A subsequent list of 44 nations was prepared which also included India. In 1996, India refused to sign the CTBT. India asserted that the name of the treaty was faulty and that it should be called Nuclear Test Ban Treaty and not Comprehensive Test Ban Treaty as it was banning nuclear testing even while keeping an option of computer simulation open for bomb improvement. India also asserted that the Article 14 of CTBT violated international law as no treaty can compel a state to sign a treaty which the state had not intended to sign. India urged for removal of Article 14 and also refused to sign CTBT for its lack of commitment to complete disarmament. The NPT review conference of 1995 also decided to continue the NPT in the same format without any change and advised no more reviews in future of NPT. Thus, in 1996, India refused to ratify both the NPT and the CTBT both. In 1992, IAEA had also come out with a safeguard agreement and had stated that only full scope countries be entitled to get technology.

Perceiving the trend of discriminatory global practices, India conducted Pokhran-II in 1998. From 11th May to 13th May, India carried out nuclear tests in an underground format. After Pokhran-II, India announced that sub criticality had been achieved and proclaimed itself as a nuclear weapon state. India also brought about a self-imposed moratorium on further nuclear testing and subsequently announced its nuclear doctrine. India pledged that it would maintain a No First Use Policy. It accepted the doctrine of Minimum Credible Deterrence. This meant that India clarified it was not necessary for us to keep our nuclear weapons in the state of readiness all the time and the mere possession of nuclear weapons was sufficient to create the needed deterrence. However, India, in its nuclear doctrine, clarified massive and unacceptable retaliation on first strike. India also stated that the use of chemical and biological warfare on India or its armed forces anywhere in the world would mean that India would retain the option to retaliate with a nuclear strike. The nuclear command of India is under civilian political leadership headed by the Prime Minister.



India and Treaty on Prohibition of Nuclear Weapons-2017

In 2017, at the UN Conference meeting in New York, countries have agreed to a Treaty on Prohibition of Nuclear Weapons. It is the most comprehensive treaty ever that places a ban on nuclear weapon related activities from developing to testing to stockpiling and usage of the weapons. India, along with US, UK, Russia, China, France, Pakistan and North Korea, decided to abstain from the negotiations. India even abstained from the voting process. In the Explanation of Vote by Amandeep Singh Gill, IFS, India's Permanent Representative at the Conference of Disarmament (COD), India asserted that Geneva based COD is the multilateral negotiation forum for disarmament. It asserted that the negotiation treaty does not address the expectations of the international community regarding prohibition and elimination of the nuclear weapons. India argued that it favors a comprehensive nuclear weapons convention under the COD that focuses on the three pillars- Prohibition, Elimination and Verification. India asserts that verification at the international level is the key to elimination of nuclear weapons at the global level. The negotiated treaty, India asserted, did not talk about verification provisions.

THE REALIST FOUNDATION OF INDIA'S NUCLEAR STRATEGY

The end of the Cold War has brought about a radical shift in the nature of the international system. In the post-Cold War times, we witness new threats in the world ranging from limited wars and territorial disputes to terrorism. It is not wrong to assert that the post-Cold War times have pushed the international system into an age of uncertainty. The uncertainty has been compounded by the asymmetry in the security structure of the world where states having no nuclear weapons at present want to acquire them in any whichever way possible to ensure that the ones having the same do not stand to gain any security leverage.

The discussion in the chapter has clearly proven that since independence, the pursuit of nuclear capabilities has been at the heart of India's governance. India, through its nuclear weapon, intends to achieve a credible minimum deterrence. The nuclear doctrine of India has declared the policy of no first use. Despite various threats, India since Pokhran-II, has refrained from expanding its nuclear arsenal or even adopting a nuclear posture that could destabilise the region.

India, however, needs to be cautious about changing ground realities. China and Pakistan have both modernised their nuclear arsenals. The fact that Pakistan is developing

tactical nuclear weapons has emerged as a new security concern for India. As China gives effect to the power transition theory, it will expand its nuclear arsenal further. China and Pakistan are also deepening their cooperation on nuclear balance in the region, which is not reassuring because of the deliberate ambiguity cultivated by Pakistan in its decision of not having published a comprehensive nuclear doctrine. In future, regional rivalries and a desire to resort to military intervention will push more states globally to acquire nuclear weapons. The debate during the Cold War period had also revolved around complete disarmament, which, more than ever, seems a distant dream. In the post-Cold War times, we see no hurry by the nuclear haves to reduce or cap their arsenals. A new round of activism has come up now that advocates for 'Zero Nuclear Option'. The countries not having nuclear weapons are sceptical that the nuclear haves are using the global zeros discourse to forsake the nuclear ambitions of the have-nots. In this context of uncertainty, India should strategically evolve its responses. India has to emphasise upon the survivability of its nuclear arsenal. If nuclear arsenals in our immediate neighbourhood expand, India should develop second strike capabilities. India should focus on developing maritime nuclear capabilities as this will enhance our security presence in the Indian Ocean. At the global level, India should continue to participate in the non-proliferation initiatives and should take up a leadership role to speak out on issues that motivate and compel states to acquire weapons. We should portray to the world that the key drivers of insecurity and rivalry propel states to seek a nuclear umbrella.

As India is vulnerable to nuclear terrorism, it must build up strong surveillance capabilities at border points with Pakistan. The same capabilities need to be upgraded at airports and seaport levels. As Pakistan has a history of nuclear proliferation, India should amend its nuclear doctrine and clarify the actions it might contemplate if nuclear weapons from a state are stolen or misappropriated. This will ensure that Pakistan cannot claim helplessness if it ever deliberately assists terrorists to go nuclear in future. An important area to work upon by India should be nuclear disaster management. To prevent any aggressive retaliation from our side, India needs to strengthen nuclear forensics. This will enable us with abilities to identify the source of launch of nuclear offensive. Seeking of US cooperation in the area of nuclear forensics can help. India, today, still stands for complete disarmament and favours the zero nuclear option but knows that complete disarmament of nuclear weapons is a chimera till the time that nuclear weapons remain the currency of power in the international system. India, to advance the goal of complete disarmament, can now promote a global No First Use Treaty at the international level as a part of its new disarmament diplomacy. In this way, it may remain committed to the goal it stood for since independence without compromising its own security. A key question remains in the mind of the readers. India has a nuclear weapon it tested in 1998 through a series of tests. Why does India have a No First Use policy? The answer lies in the nuclear doctrine of India.

The situation at the end of the Cold War was very different. Pakistan and China has not only developed nuclear weapons but were collaborating with each other to proliferate them in Asia. India on the other hand, at the end of the Cold War, was a state that had tested a Peaceful Nuclear Explosion way back in 1974 under the NPT. Since 1974, India had already faced a nuclear threat thrice (twice from Pakistan and once from the US on behalf of Pakistan through US enterprise in 1971). By 1998, it was clear that the nuclear

weapons had become a core currency of power in the age of uncertainty. India stated that it would not be the first to use the weapons as their prime role is to deter states that had the potential to blackmail us. However, India clarified that on first strike, it will resort to massive and unacceptable retaliation against the adversary state. This was India's concept of credible minimum deterrence. India's nuclear posture is defined not by the number of weapons in its total arsenal but how it will inflict damage on an adversary as a retaliatory strike of First Use by others.



The core purpose of India to have nuclear weapons is to have them for national security in a world of anarchy and blackmail. India has not acquired its nuclear weapons to rectify military imbalances or assert regional superiority, but serve the purpose of deterrence.

Since 1998, after India acquired these weapons, no state has resorted to blackmailing India or used any nuclear coercion against India. As India has resorted to a mixture of no first use and assured retaliation, this policy has served the India's nuclear strategy but has some direct implications on the nuclear posture of India. For deterrence to be successfully achieved, India needs to match war heads with equal numbers of missiles as possessed by the adversaries to make the threat of retaliation credible enough. There is a possibility that in this scenario, the adversary would test Indian space below certain thresholds of nuclear escalation. In such instances (as happened in 1999 in the Kargil conflict) the logical strategy is not counter force targeting whereby the military structures of enemies are targeted but to resort to counter value targeting where the assets of the opponents are targeted. In this scenario, the Prithvi missiles with a range of around 350 km are effective instruments of deterrence.

However, debates have arisen about the efficacy of the NFU Policy. Some scholars assert that the Indian NFU is a pious hope without covering other Nuclear Weapon states. In this case, assuming that India might shift to first use policy, the question arises, would it serve any purpose? Answer is no. Because a first use policy does not prevent blackmailing threats and more so, is destabilising in nature. In this case, India's NFU is at least deterring the use of weapons of NWS. There could be a situation, however, where a NWS could threaten India with a nuclear strike and an assessment by India could establish that the threat was imminent. In this scenario, would India resort to a first strike? The nuclear doctrine is silent on this. Thus, Indian NFU and its deterrence have provided the needed protection to India. India lives in a neighbourhood which is heavily nuclearised. The policy of keeping the nuclear option open, since in 1950s, has enabled us not only to weaponise but keep these nuclear threats at a bay. The nuclear choice of India may have been couched in moral terms but has been expressed in realistic terms.

CONCLUSION

India undertook a nuclear test in 1998. This testing by India was a challenge to the global disarmament framework. The Indian test ended the Cold War security system and forced

the forced the world to move towards a re-evaluation of global non-proliferation system.

India has always linked its domestic security with the nuclear disarmament at the global level. India has always asserted that nuclear weapons pose a security threat as they are instruments of coercion and therefore India has pressed for a nuclear weapons free world. To seek the elimination of nuclear weapons, India has favored a multilateral forum like Conference on Disarmament (COD), which India wants, should develop an effective and verifiable treaty to end nuclear weapons. The Indian goal has been complete universal disarmament since the end of World War-II. In 1963, when PTBT emerged, India supported the same as it felt that PTBT would be a step to end the ongoing arms race between USSR and US. But, PTBT felt short of all expectations for India. The world moved from PTBT to the NPT. As NPT tried to institutionalize the hierarchy at the nuclear level; India rejected the NPT too. Though India maintained a civilian nuclear program from 1948, but the Indian strategic security environment was challenged when China tested its nuclear weapon in 1964. This Chinese test compelled India to undertake SNEP in 1974. Through the 1974 SNEP India conveyed its strategic resolve to preserve global strategic autonomy. Post 1974, India embarked strategic ambiguity and this effectively served India's security interests. India, even post 1974, asserted that it would favor global disarmament and focus on economic development. This strategic ambiguity served an effective deterrent to China while it also thwarted any Pakistani attempt to overtly seek nuclear capabilities. More so, such opaqueness also did not challenge the global non-proliferation order. India continued to favor universal disarmament during Rajiv Gandhi's tenure as he proposed the famous Rajiv Gandhi Action Plan on Disarmament (in 1988) seeking complete disarmament by 2010. In 1995, in the NPT Review and Extension Conference the world again lost an opportunity to reassess the NPT. Their decisions to indefinitely extend the NPT led to India assert that the world has decided to postpone complete disarmament forever. India thought that the Nuclear Test Ban Committee that was tasked with the responsibility of drafting the CTBT could rectify this anomaly. But as the draft of the CTBT emerged in 1996, the draft did not show any affirmative commitment on global disarmament. India rejected the CTBT by asserting that the CTBT tried to legitimize the nuclear weapons as a privilege for a few and also presented no timeframe for complete disarmament. During the CTBT negotiations, India for the first time had asserted that India needed to have a strategic flexibility till the time countries in and around India don't relinquish their nuclear weapons (with special emphasis upon the clandestine Pakistan-China cooperation and the nuclear bazaar of Pakistan). India eventually conducted a nuclear test in 1998 and ended the ambiguity. Post 1998 nuclear test, India decided to engage with nuclear powers after assuring the concerns of the world by announcing its nuclear doctrine. Since then, India has concluded a host of nuclear deals for nuclear commerce (with most recent one with Japan in 2016). In 2015, during the visit of President Obama to India, the President exercised his executive powers to remove the final hurdles in the Indo-US Nuclear deal. As per the Indo-US nuclear deal, US would monitor nuclear material that India would purchase from any third country. But, President Obama, during the visit, rolled back this clause. The two sides established a nuclear insurance pool to assure suppliers in case of nuclear accidents. Thus, in the conclusion, it would not be wrong to assert that India has successfully found its way into global nuclear order based on its own terms and has come a long way as a responsible nuclear power from being a nuclear pariah.

E d of Section Questions

1. What are the implications of China-Pakistan Economic Corridor on the Indian Security?
2. How does India manage China by using Deterrence Through Denial strategy?
3. Discuss the various mechanisms used by India to tackle terrorism internationally.
4. What is the role of airpower in diplomacy?
5. How can air power be used to achieve national interests in foreign policy?
6. Examine the core elements of India's Public diplomacy.
7. Discuss Indian diplomacy while negotiating at the United Nations Convention of Laws of Seas.
8. Is Indo-Pacific the new normal in contrast to the Asia-Pacific?
9. What are the core actors in India's Economic Foreign Policy? Examine the evolutionary stages through the prism of idea domination and change model.
10. "India's energy security policy has witnessed a major policy shift at the end of Cold War." Examine this statement by explaining the major shifts in the energy security diplomacy from Cold War to the Post-Cold War?
11. What are the shifts in India's engagement with its diaspora since Nehruvian era?
12. In the recent times, security of the diaspora is an important foreign policy goal of India. Highlight the major operations undertaken to protect the diaspora in the recent times.
13. Is the Indian Diaspora a globally untapped asset? Discuss.
14. What are NPT and CTBT? Why has India refused to sign NPT and CTBT?
15. Indian disarmament policy has changed post India's nuclear testing in 1998. Discuss the major shift in the Indian disarmament diplomacy.