INDIA'S NUCLEAR DECISION MAKING, 1962 – 1974:

THE ROOTS OF AMBIGUITY

Dissertation submitted to Jawaharlal Nehru University
in partial fulfillment of the requirements
for the award of the degree of

MASTER OF PHILOSOPHY

ARUN VISHWANATHAN

Disarmament Studies Division

Centre for International Politics, Organization and Disarmament

School of International Studies

JAWAHARLAL NEHRU UNIVERSITY

New Delhi 110067

2006

21 July 2006

DECLARATION

I declare that the dissertation entitled "India's Nuclear Decision Making 1962-1974: Roots of Ambiguity" submitted by me for the award of the degree of **Master of Philosophy** of Jawaharlal Nehru University is my own work. The dissertation has not been submitted for any other degree of this University or any other university.

Arun Vishwanathan

CERTIFICATE

We recommend that this dissertation be placed before the examiners for evaluation.

Prof. Varun Sahni

Chairperson, CIPOD

Chairperson
Centre for International Politics,
Organization & Disarmament
School of International Studies
J.N.U., New Delhi

Dr. Swaran Singh

Supervisor

To my Parents,

for allowing me the space to find my calling...

ACKNOWLEDGEMENT

First and foremost, I would like to acknowledge the immense contribution of my parents in my growth as an individual. They have made countless sacrifices in their endeavour to ensure that I do not face any difficulties in my quest for knowledge. I will always remain indebted to them.

I consider myself very fortunate to have had the chance to write my dissertation under the supervision of Dr. Swaran Singh. He has been a guiding light and a source of inspiration during the entire course of writing my dissertation, especially during the rough patches. Always there to lend a helping hand whenever I have been in difficulty, it has been wonderful to work with Dr. Singh. I cannot thank him enough for seeing this dissertation through.

Thanks are also due to Prof. Rajesh Rajagopalan, Prof. Varun Sahni and Dr. C. Raja Mohan who have always shown interest in my research and have always been prepared to take time off their pressing schedules and discuss my ideas with them.

Jomo, Priyanka, Supriya, Sameer and Vikas have been my "pools of sanity" throughout the course of this dissertation as well as my stay at JNU since my Masters. They have been ever willing to act as sounding boards for any ideas that I wanted to discuss in relation to my dissertation over endless cups of tea at the dhaba. I wish them all the very best for their future endeavours. I have learnt quite a bit from each of them. Guys, it has been a memorable journey...

CONTENTS

CONTENTS

LIST OF ABBREVIATIONS

AEC	Atomic Energy Commission
AEET	Atomic Energy Establishment, Trombay
AICC	All India Congress Committee
BARC	Bhabha Atomic Research Centre
CIRUS	Canada – India – US Reactor
DAE	Department of Atomic Energy
DRDO	Defence Research and Development Organisation
ENDC	Eighteen Nations Committee on Disarmament
IAEA	International Atomic Energy Agency
NATO	North Atlantic Treaty Organisation
NPT	Nuclear Non-Proliferation Treaty
PAF	Pakistan Air Force
PMO	Prime Minister's Office (India)
PNE	Peaceful Nuclear Explosive
POK	Pakistan Occupied Kashmir
PPP	Pakistan Peoples' Party
PSP	Prajatantra Socialist Party
PTBT	Partial Test Ban Treaty
RAM	Rational Actor Model
SNEP	Subterranean Nuclear Explosion Project
SNEPP	Study Nuclear Explosion for Peaceful Purposes
SNIE	Special National Intelligence Estimate
SSP	Samyukta Socialist Party
TBRL	Terminal Ballistics Research Laboratory
TIFR	Tata Institute of Fundamental Research
UNDC	United Nations Committee on Disarmament

CHAPTER I

INTRODUCTION

This dissertation seeks to study the reasons, processes and timing behind India's decision to conduct its first nuclear test in May 1974. This was almost a decade after the Chinese test that was conducted on 16 October 1964 which is believed to have stirred debates about building an Indian nuclear weapon. It will also study the impact that the ambiguity in the nuclear decision making, which was a result of the Indian attitude towards arms control and nuclear power issues and nuclear weapons, had on the Indian decision to test its nuclear device. Various other politico-socio-economic factors that influenced the Indian Government's decision will also be studied. The dissertation will examine the role of the politico-scientific-bureaucratic institutions involved in the decision to conduct the nuclear test in 1974. It will also study the internal and external pulls and pressures that operated on the various institutions involved in the test and the Indian government as a whole and the reasons behind the test and its timing. Finally it will examine the impact that the Nuclear Non-Proliferation Treaty (NPT) negotiations and the 1971 Indo-Pak war had on the Indian decision to conduct the 1974 Peaceful Nuclear Explosion (PNE).

Due to certain peculiarities intrinsic to the Indian nuclear programme, academics and strategists have been constantly interested in the developments related to India's nuclear programme. What this dissertation seeks to study is the workings of decision making within the Indian nuclear programme and the various factors influencing the decision making process. This study will focus on the years preceding the Indian Peaceful Nuclear Explosion (PNE) in 1974 to analyse the pulls and pressures behind the final decision and the timing of the nuclear test. The period under study has been narrowed down to the beginning of the Sino-Indian border skirmishes. This is so because this was the period when pressure started building upon the ruling Congress party and the Prime Minister Jawaharlal Nehru from both within the ranks as well as from the opposition to take a firm stand on the Indian nuclear programme and its military potentialities.

The ambiguity in the Indian nuclear decision making that was a result of the Indian attitude towards nuclear weapons comes out very sharply in the debate that followed the Chinese nuclear test. There were strong proponents within the Congress Party for building an Indian deterrent, like the then Foreign Minister Swaran Singh and the Minister of Railways S.K.Patil. However, other leaders like Y.B. Chavan who was then the Defence Minister under Nehru opposed the idea; he made a statement in the Parliament to the effect that the Chinese bomb would not significantly increase Chinese military strength* (Mirchandani 1968: 26). Opposition leaders belonging to the Bhartiya Jana Sangh on the other hand, in a resolution of the party's session in Patna in December 1964, demanded that India produce her own nuclear weapons (Patil 1969: 79). The Swatantra Party took the opposite stand. Addressing a press conference, the General Secretary of the party, M.R. Masani, urged the government to rely on the deterrent provided by the US umbrella rather than itself enter a nuclear race (Mirchandani 1968: 27).

The November 1964 All India Congress Committee (AICC) meeting brought out this internal debate very clearly. Even in face of a large number of Congress members at the meeting demanding that India acquire an independent nuclear deterrent against any possible Chinese threat, Shastri and other top Congress leaders managed to get a resolution passed unanimously to the effect that India would not enter the nuclear arms race. Shastri later declared that "We cannot at present think of making atomic bombs in India. We must try to eliminate the atomic bombs in the world rather than to enter into a nuclear arms race competition" (Bhatia 1979: 111; Mirchandani 1968: 29). This period of India's nuclear programme is replete with such statements and incidents. In light of these statements this dissertation will examine the compulsions that kept India from testing and the role that the ambiguity that came about due to the Indian attitude towards arms control, concerns about nuclear power and nuclear weapons had in this dilemma.

---

* Sardar Swaran Singh (1907 - 1994) served as India's foreign minister under Lal Bahadur Shastri from 1964 to 1966, and again under Mrs. Indira Gandhi from 1970 to 1974. He also served as the Indian defence minister from 1966 to 1970, and again from 1974 to 1975. He was also president of the National Congress in 1977, and from 1978 to 1979. Mr. Y. B. Chavan (1913-1984) was appointed the Defence Minister of India after the resignation of Krishna Menon in the wake of the 1962 Sino-Indian War. He subsequently held the portfolios of Home and External Affairs during Indira Gandhi's tenure as Prime Minister. In 1979 he became the Deputy Prime Minister of India in the Charan Singh government.

The dissertation will study the compulsions that made the Indian state to deliberate on the decision whether or not to test for such a long time in face of such an immediate and direct threat from a bigger and more powerful neighbour, with whom a war had been recently fought and lost resulting in humiliation and loss of face. The length of the deliberations also becomes quite perplexing because of the fact that, the domestic pressure to go ahead and test was also mounting on the Indian government at this point of time. It is here that the domestic debates about whether or not to conduct the nuclear test following the Chinese nuclear test on 16 October 1964, that came close on the heels of the comprehensive Indian defeat in the 1962 Sino-Indian War will be traced and the impact that it had on the course of the Indian nuclear program will be studied.

In examining this perplexity in India's nuclear debates during much of the 1960s, theories such as neo-realism will be used to explain the delay in the Indian decision to test in face of a danger that was real and immediate. Neo-realism would suggest that in an anarchic system of international relations states will maximize their power for self-preservation (Waltz 1954: 227). If an adversary possess nuclear weapons or is likely to possess them in the near future then, a state would be expected to seek nuclear capability to balance that threat in the absence of alternative means. Such a state would be most pertinent to result in 'balancing'.

Another theoretical framework that will be used in the dissertation to study the decision making processes within the Indian nuclear program and the delay in the Indian decision in face of the Chinese nuclear threat will be the three models for national decision making given by Graham Allison's which is best brought out in his books *Essence of Decision: Explaining the Cuban Missile Crisis* (Allison 1971: 1999). The three components of Allison's model are Rational Actor model, Organizational Process model and Governmental Processes model. Of these models Model I and III will be most helpful in explaining the Indian nuclear decision making with reference to the period under study. The Rational Actor Model will focus on delay in the Indian testing and see how it balances against Indian self-interest. The last part of this test will employ the

Governmental Politics model of national decision-making. Model III will be extremely useful to analyse the Indian nuclear decision making process leading up to the actual decision to conduct the Peaceful Nuclear Explosion because of the involvement of multiple actors in the process and pressures that they were operating under.

The third chapter of the dissertation titled "Internal and External Dynamics" will focus on two things; first, it will focus on the indigenous response to the Chinese test by way of trying to secure external security guarantees, trying to understand the rationale behind such a move and the reasons behind its failure. The second part will focus on the development of the nuclear programme that was fast giving India the capability to conduct an underground nuclear explosion and the decision to go ahead with the subterranean nuclear explosion project (SNEP). Here various domestic factors like the change in the outlook of the scientific leadership after the ascendancy of Vikaram Sarabhai as the head of the DAE, the prevailing domestic economic crisis, as well as the domestic political turmoil will be studied. It is important to study these because they had an influence whether positively or negatively on the final decision to go ahead with the Peaceful Nuclear Explosion (PNE).

An important part of the dissertation will be to the study the manner in which the political scientific and bureaucratic establishments associated with the Indian nuclear programme interacted with each other leading up to the final act of conducting the PNE in 1974. The pulls and pressures that operated within these institutions and the manner in which they interacted with each other. It will be studied how these institutions which have been described as the 'strategic enclave' impacted the final decision to test and its timing. Individuals who were heading these institutions and their position within the governmental set up and their role in the decision will also be traced.

To understand the cause for India's delay to test, various other possible factors will also be assessed. It will be studied whether lack of technical capabilities, or change in the top leadership with the death of Bhabha in 1966 can provide explanations for India's inexplicable behaviour. Various internal and external contributory factors will also be

evaluated to see whether they provide any satisfactory explanations. It will also be seen as to how important bureaucratic wrangling was in the whole process. A section of the bureaucracy was pointing out that the decision to go ahead with the test would not be a pragmatic one given India's socio-economic condition at that point of time (Ramanna 1991: 75, 89). It will be seen what role this argument played in delaying the decision till '74.

It is most likely that two reasons were instrumental in India taking the decision to conduct the PNE. First, was the manner in which the Nuclear Non Proliferation Treaty (NPT) was negotiated and the Indian perception that the treaty was blatantly discriminatory. Secondly, the predominantly pro-Pakistani stand taken by U.S during the '71 war. Both, these instances made India realize that its moralpolitik was not having the desired effects and that it needed to be proactive to secure its national interests on its own and take charge of the situation.

Thus, the deliberations to formulate a Nuclear Nonproliferation Treaty (NPT), of which India was a very active member, both as a leader of the Non-aligned movement and also as a active member of the Eighteen Nation Committee on Disarmament (ENDC); and the manner in which the NPT turned out, will be an important component of the dissertation and will be dealt with in detail in the fourth chapter titled "The Nuclear Weapons Programme". Here the focus will be on the internal debates within India and the understanding that was prevalent at that point of time with regard to India's security concerns and the manner in which the NPT addressed them.

Indian and Israeli Nuclear Policy: Cases in Ambiguity

Ambiguity is said to be the hallmark of the Indian nuclear decision making. Ambiguity in nuclear policy is however not exclusive to the Indian case. The Israeli nuclear programme too is replete with ambiguity. Indian and Israeli nuclear policies have been perceived and described as one of 'strategic ambiguity' (Ollapally 2001, 928). Akin to the Indian case the Israeli decision to keep their nuclear policies ambiguous too has been a deliberate and

calculated one. It was true in the cases of both the countries that, following a policy of 'strategic ambiguity' served them far greater purpose than to publicly declare their nuclear programmes.

In the Indian case, it could be probably said that Prime Minister Jawaharlal Nehru and Homi Bhabha, by far the most influential personalities involved in the Indian nuclear decision making, realised the utility of ambiguity because they knew that given the international scenario, India would otherwise not be able to acquire nuclear technologies. Having no doubts in their minds about the importance of possessing nuclear technology both for meeting India's energy needs in the future and its deterrence potential, they probably decided that following a policy of ambiguity was the best one for India (Norman 1965, 186).

While the Indian reasons to adopt ambiguity were largely related to concerns relating to termination of nuclear technology transfers to its nascent nuclear power program; the Israeli concerns were different in nature. Israel did not want to actively pursue a nuclear power program. A point that is strengthened by the fact that it has only one nuclear power reactor that is located at Dimona in the Negev Desert.[†] Unlike India which adopted ambiguity to avoid termination of nuclear technologies Israel's nuclear know-how was in fact being actively sought after by the West. The French who desired atomic independence from the US/NATO, wanted to learn the method developed by the Israelis for the processing of low-grade uranium ores such as phosphates (which Israel found in the Negev desert) into fissile material. They also needed the Dostrovsky method of producing heavy water that was proving to be more economic than the Norwegian electrolytic method (Pry 1984: 5).

Israel's concerns were thus, more of the nature of an overt declaration of its nuclear capability posing legal problems for its continued economic and diplomatic assistance

[†] Beginning around 1957 with French assistance, Israel constructed a natural uranium, heavy-water, research reactor at Dimona in the Negev Desert, about 8.5 miles from the town of the same name and some 25 miles from the Jordanian border. This reactor, nominally rated at 26 megawatts thermal, was put on line in early 1964.

and political support from the United States.[‡] The fear of the US fallout has been the singular most important reason, why the Israeli government has till not overtly declared its bomb capabilities. This is despite the fact that in academic as well as governmental circles, Israel's possession of nuclear weapons is taken for a fact (Pranger and Tahtinen 1971; Harkavy 1977; Dowty 1978: 79-81).

Israel's nuclear policy has been an ambiguous one. The official declared policy since the 1960s is that Israel "has not initiated and will not initiate the introduction of new arms or any sort of new weapons into the Middle East, conventional or non-conventional."[§]

This policy of 'no introduction' is however marred by deliberate ambiguities and leaves room for an undisclosed weapons program, which most observers after the 1970s South Africa-VELA incident believe that Israel already possesses. A secret near-bomb or bomb-in-the-basement can be developed without being 'introduced' publicly. Thus, a nuclear option thus can be maintained for almost any length of time (Dowty 1978: 83). Shimon Peres viewed the ambiguity and the Arab suspicion of an Israeli nuclear capability as serving Israeli interests. In 1966 he stated in the Knesset, "I know that this suspicion is a deterrent force. Why, then, should we allay these suspicions, why should we enlighten them?" (Dowty 1978: 83) Some decision makers maintain that while their country will not be the first to introduce nuclear weapons, "it will not be the second either" (Shikaki 1985: 83). The Israeli nuclear debate is replete with such statements, which hardly shed any light on its actual capabilities and are on the other hand deliberately designed to be ambiguous.

[‡] The U.S. nuclear non-proliferation policy is made up of an intricate web of treaty commitments, informal undertakings, executive branch statements and actions, and legislation. It imposes conditions and restrictions on U.S. nuclear exports and cooperation. The statutory basis for the US non-proliferation policy is provided by the Atomic Energy Act of 1954 (AEA), as amended, and the Nuclear Nonproliferation Act of 1978 (NNPA). They require the cutoff of U.S. nuclear cooperation with states that violate nuclear cooperation agreements with the United States or non-nuclear weapons states that test a nuclear explosive. Section 309(c) of the NNPA requires the Department of Commerce to control exports of nuclear dual-use goods (items that have both civilian and military applications). Other dual-use items are subject to controls established in the Export Administration Act (EAA). Another crucial piece of legislation is the Foreign Assistance Act of 1961which requires the United States to cut off economic and military aid to countries that supply or receive unsafeguarded enrichment or reprocessing technology (the Glenn-Symington amendments, Sections 669 and 670).

[§] This formulation was offered by Prime Minister Levi Eshkol in May 1964 and has been repeated verbatim by Israeli leaders ever since.

Neo-Realism

According to the theory of structural realism also known as neo-realist theory, states exist in an anarchical international system and must therefore rely on self-help to protect their sovereignty and national security (Waltz 1979; Keohane 1986). For the neo-realists security is the most important cause of nuclear proliferation. This is because the neo-realists see the international system as anarchic, where there is no superior authority to play the role of arbiter of disputes (Waltz 2003: 53). For neo-realists, the use of force is always a possibility. As Waltz writes, "units in an anarchic order act for their own sake and not for preserving an organisation and furthering their fortunes within it (as compared to the domestic system). Force is used for one's own interest (Waltz 2003: 63).

Discounting all other aims states might seek to pursue, neo-realists see self-preservation to be a pre-requisite to achieving any goals that states might have, other than promoting the goal of their own disappearance as political entities (Waltz 2003: 52).

Three ideas are central to a neo-realist explanation of state behaviour and why states acquire nuclear weapons (Mearshimer 1994-95: 9-12). The first idea is that all military capability possessed by states can be used to hurt others. Thus all capability is inherently offensive in nature. The second central idea is that intentions of states are hidden and are difficult to perceive, understand and most of all be certain of the intentions of other states. War for the neo-realists is always a possibility because states are firstly in possession of offensive military capabilities and can harbour hostile intentions towards other states. The third idea central to neo-realism is that relative capabilities of states are more important than absolute capabilities. This is so because it is only when the capabilities are perceived in a relative manner that the complete picture emerges.

Because of the enormous destructive power of nuclear weapons, any state that seeks to maintain its national security must balance against any rival state that develops nuclear weapons by gaining access to a nuclear deterrent itself. This can produce two policies. First, strong states can pursue a form of internal balancing by adopting the costly, but

self-sufficient, policy of developing their own nuclear weapons. Second, weak states can join a balancing alliance with a nuclear power, utilizing a promise of nuclear retaliation by that ally as a means of extended deterrence. Though for such states, an alliance with a nuclear power may be the only option available, the policy does raise questions about the credibility of extended deterrence guarantees, since the nuclear power (guarantor) would also fear retaliation if it responded to an attack on its ally (Sagan 1996-97: 55).

Nuclear weapons can be developed to serve either as deterrents against overwhelming conventional military threats, or as coercive tools to compel changes in the status quo. However, the most common and parsimonious explanation for states acquiring nuclear weapons is said to be the states' responses to emerging nuclear threats.** However, as and when one state develops nuclear weapons to balance against its main rival, it also by the very act creates a nuclear threat to another state in the region, which then has to initiate its own nuclear weapons program to maintain its national security (Sagan 1996-97: 57).

The history of nuclear proliferation can thus be understood as a strategic chain reaction. None of the actors were sure during the World War II that the development of nuclear weapons was actually possible, but they were all aware that the other states were working to build the bomb. The United States was aware of the German and Japanese efforts, the Soviets were aware of the US efforts and likewise. It was this fundamental fear that was the main driving force behind the United States, British, German, Soviet, and Japanese nuclear weapons programs. The United States was the first to develop atomic weapons not because it was posed with a far greater threat than the other actors in the race. It was only because it invested more heavily in the program and made the right set of technological and organizational choices (Bundy 1988: 3-53; Rhodes 1986).

The nuclear weapon became a strategic imperative for the Soviet Union due to the US attacks on Hiroshima and Nagasaki. This situation was further compounded by the

** The Israeli, and possibly the Pakistani, nuclear weapons decisions might be the best examples of defensive responses to conventional security threats; Iraq, and possibly North Korea, might be the best examples of the offensive coercive threat motivation.

emerging Cold War. Stalin's request to Igor Kurchatov and B.L. Yannikov in August 1945 is perfectly understandable from the neo-realist perspective:

> "A single demand of you comrades. . . . Provide us with atomic weapons in the shortest possible time. You know that Hiroshima has shaken the whole world. The balance has been destroyed. Provide the bomb-it will remove a great danger from us" (Holloway 1980: 20; Thayer 1995: 487).

In his book *The Soviet Union and the Arms Race* David Holloway (Holloway 1980) has described how the nuclear weapons programs in the other countries was playing on Stalin's mind even during the World War:

> "Perhaps Stalin had it in mind that after the war the Soviet Union would have to face a nuclear-armed Germany, for at this early period (1942) he may have only minimum war aims, which did not necessarily include the destruction of the Nazi state. Perhaps he foresaw that even with the defeat of Germany the Soviet Union would come into conflict with Britain and the United States; after all they were conducting their atomic projects in great secrecy, without informing the Soviet Union. More probably, the decision should be seen as a hedge against uncertainty. Given that Germany, Britain, and the United States were interested in the atomic bomb, was it not as well to initiate a soviet project, even though the circumstances in which the new weapons might be used could not be foreseen?" (Holloway 1983: 18)

The nuclear weapons decisions of UK, France and China too can be explained within the same framework. UK and France saw it necessary to build nuclear weapons because of the growing Soviet threat and also due to their lack of belief in the US guarantee through the NATO, especially once the Soviet Union too could threaten retaliation against the US (Gowing 1964; Gowing 1974; Scheinman 1965; Kohl 1971). It was the United States' threat of possible nuclear attack first at the end of the Korean War and again during the mid-1950 Taiwan Straits crisis that led China to look at the nuclear option. The Chinese will was further strengthened by the fact that during the 1950s Moscow had not been a very dependable ally and it was the emergence of hostility in Sino-Soviet relations in the 1960s that proved to be proverbial last straw on the camel's back. As Avery Goldstein describes the need of the "robust and affordable security" of nuclear weapons post Sino-Soviet border clashes, which "again exposed the limited value of China's conventional deterrent" (Goldstein 1992: 494; Lewis and Litai: 1988).

In the neo-realist understanding, after the Chinese test in 1964, India was bound to develop its deterrent. The Indian response did come in the form of the Peaceful Nuclear Explosion (PNE) in May 1974. The neo-realists would contend that India maintained its ambiguous nuclear posture even after 1974 because India wanted to possess a deterrent against China not encourage nuclear weapons programmes in neighbouring countries. India however, did not succeed in its endeavour; the Indian bomb immediately posed a threat to Pakistan which was now faced with a hostile neighbour which had possessed nuclear weapons as well as conventional military superiority. It was thus inevitable that Islamabad sought to produce its own nuclear weapon in the shortest period possible (Moshaver 1991; Kapur 1987).

Neo-Realism and the Indian Case

Neo-Realism however is not able to sufficiently explain the delay in Indian testing after the Chinese test in October 1964. It does not provide a clear explanation to the question as to why the Indian leadership did not launch a crash weapons program and take it to its logical conclusion.[††] Neo- Realism also cannot explicate why after having tested in 1974, India opted not to go overtly nuclear for another 24 years or why it continued its slow-motion process of weaponisation despite the expanding Chinese nuclear capabilities and threat.

Neo- Realism is thus most relevant in explaining the developments in the Indian nuclear weapons programme between 1964 and 1966, where in the immediate aftermath of the Chinese nuclear test in 1964 the then Prime Minister Lal Bahadur Shastri decided to give the go-ahead to SNEP in April 1965 (Ramanna 1991: 74). However, neo-realism fails to explain why SNEP was shelved following the sudden deaths of Shastri and Bhabha in 1966 and why it was revived by Prime Minister Indira Gandhi in the form of the 'peaceful nuclear explosion' (PNE) in 1974, when India tested but did not weaponise its

[††] When China tested in October 1964, India could have responded by exploding its own nuclear device, by the late 1960s. This was possible because, by 1965 India had already completed the construction of the 40 MW CIRUS plutonium production plant, the Trombay reprocessing plant and had drawn up plans for the Subterranean Nuclear Explosion Project (SNEP) during Lal Bahadur Shastri's tenure.

nuclear capability maintaining that it would not develop nuclear weapons and that the 1974 explosion was a peaceful one (Jaipal 1977: 46-47).

The Indian delay in testing can be better explained using the Governmental Politics model of Graham Allison. The neo-realist account of the Indian nuclear weapons programme does not bring out that there was no consensus in the Indian party circles as well as among the officials on the fact that it was necessary for New Delhi to have a nuclear deterrent as a response to the 1964 Chinese test. Had that been the case either of two things would have occurred. Firstly, a crash weapons program could have been initiated; no evidence exists that such an emergency programme was in fact started. And given the relatively advanced state of the Indian nuclear energy at that time, such a crash weapons development programme could have produced a nuclear weapon by the late 1960s ‡‡ (Central Intelligence Agency 1965: 4). Secondly, the Indian leadership could have made a concerted effort to acquire nuclear guarantees from the United States, the Soviet Union, or other nuclear powers. Though India did try pursuing the path of acquiring a multilateral security guarantee, the Indian quest for an external security guarantee did face many hindrances in form of an inconsistent policy to pursue security guarantees, and the perceived contradiction that the idea of the security guarantee had with the Indian non-aligned status. This contradiction led to the Indian side push for multilateral guarantees rather than bilateral ones. However, with any sort of multilateral or joint guarantees failing to materialize from the US and the USSR Indira Gandhi, publicly questioned whether any multilateral or bilateral guarantee could possibly be considered credible (The Hindustan Times 1967: 6; Noorani 1967: 498).

Thus, instead of producing a united Indian effort to acquire a nuclear deterrent, the Chinese nuclear test produced a prolonged bureaucratic battle, fought inside the New Delhi political elite and nuclear energy establishment, between actors who wanted India to develop a nuclear weapons capability as soon as possible and other actors who

‡‡ In 1965, U.S. intelligence agencies estimated that India could test a nuclear weapon around the second half of 1966. The rationale that the US posited was that India possessed everything which is required to conduct a nuclear test; from plutonium to plutonium processing plants to weapons design. They had estimated that by 1970 India would possess around a dozen nuclear weapons in the 20 KT range.

opposed an Indian bomb and supported global nuclear disarmament and later Indian membership in the NPT.[§§] An intense debate ensued that centred around the question of giving up the traditional Indian policy of opposition to nuclear weapons, the value of the nuclear deterrent and the cost that such a program would place on the national exchequer that was already reeling under the food crisis and a very slow growing economy. As a compromise, Shastri in 1965 agreed to create a classified project to develop an ability to detonate a PNE within 6 months of any final political decision[***] (Bhatia 1979: 120-122; Ramanna 1991: 74). However, even this compromise was short-lived, as Bhabba's successor at the AEC, Vikram Sarabhai, opposed the development of any Indian nuclear explosives, whether they were called PNEs or bombs, and ordered a halt to the PNE preparation program (Kapur 1976: 195; Ramanna 1991: 75).

After Sarabhai's death in 1971, the pro-bomb scientists in the AEC began to lobby Prime Minister Indira Gandhi to give the go-ahead for the Peaceful Nuclear Explosion. There were differences even within the small group which was deciding on the Pokhran test. This group consisted of P. N. Dhar, who was the Principal Secretary, P.N. Haskar, the former Principal Secretary to the Prime Minister, Dr. Nag Chaudhary, Scientific Advisor to the Defence Minister, H.N. Sethna, Chairman of the Atomic Energy Commission and Dr. Raja Ramanna (Ramanna 1991: 89).

P. N. Dhar, who was the Principal Secretary, was vehemently opposed to the PNE as he felt that it would have disastrous implications for the Indian economy. Dhar is reported to have said "We have to make a fundamental decision whether it is a strong economy that is our number one priority. Let me tell you it would be impossible to maintain the planned seven percent growth rate for long periods unless we have polices that are mutually reinforcing rather than at loggerheads. I believe that what we need is a strong

---

[§§] The 'pro-bomb' lobby was composed of scientists like Bhabha and political parties like the Jana Sangh as well as sections of the ruling Congress party. The 'no-bomb' was being composed of leaders like Lal Bahudur Shastri, Y.B. Chavan in the Congress and M.R. Masani of the Swatantra Party (PSP).

[***] Raja Ramanna led the group that was formed to study the possibility and benefits of nuclear explosions. This group was called the Study Nuclear Explosion for Peaceful Purposes (SNEPP). In his book *Years of Pilgrimage: An* Autobiography, Raja Ramanna wrote "getting the Prime Minister to agree to this venture must have required great persuasion, as Shastriji was opposed to the idea of atomic explosions of any kind" (Ramanna 1991: 74).

economy with a military potential following in tandem" (Chengappa 2000: 54). P.N. Haskar, the former Principal Secretary to the Prime Minister felt that the time was not ripe to conduct the test. As Raj Chengappa writes in his book *Weapons of Peace* "Haskar felt that the timing wasn't right because he wanted the explosion to occur preferably closer to the general election scheduled for 1976 so that Mrs. Gandhi could capitalise on it politically" (Chengappa 2000: 54). However in an interview in 1998, P. N. Haskar admitted that political considerations were a major factor but added that there were other equally important considerations. He added "I was also thinking about the future. We needed to prepare a little better. We needed to convert this explosion into a weapon. There was a lot of technical work still required. And I wanted a detailed look ahead. We needed to plan all this otherwise it would have become only a political explosion. What I was looking for was a series of explosions" (Chengappa 2000: 54-55).

Dr. Raja Ramanna on the other hand felt that "it was now impossible to postpone the date at any given the expense, time and the critical stage the experiment had reached (Ramanna 1991: 89). The Prime Minster Indira Gandhi was on the sided of the scientists in this debate. The reason she gave for the PNE to be carried out on schedule was that India required such a demonstration. At the end of the meeting Mrs. Gandhi simply said "While there may be enough logic for not doing it, I don't accept it. We should go ahead with a test" (Chengappa 2000: 54; Ramanna 1991: 89). Though, there is no firm evidence on why Mrs. Gandhi decided to approve the scientists' recommendation to build and test a "peaceful" Indian nuclear device, it could be postulated that domestic pressures did in fact weigh heavily on her decision[†††] (Goldblat 1985: 114; Chengappa 2000: 54-55).

A number of observations about the decision, however, do suggest that addressing domestic political concerns, rather than countering international security threats, were paramount. Here it is important to take into account that domestic support for the Gandhi government had fallen to an all-time low in late 1973 and early 1974 due to a prolonged and severe domestic inflation, the eruption of large-scale protests and strikes all across

[†††] Although Mrs. Gandhi denied, in a later interview, that domestic concerns influenced her 1974 decision. She did, acknowledge that the nuclear test "would have been useful for elections" (Goldblat 1985: 114; Chengappa 2000: 54-55).

northern India, and the lingering effects of the splintering of the ruling Congress Party. Thus, it would make perfect political sense for Mrs. Gandhi to go ahead with the PNE as it provided her with a wonderful opportunity to improve her standing in public opinion polls and to defuse an issue about which she had been criticized by her domestic opponents. Though Mrs. Gandhi did deny that domestic concerns influenced her decision to conduct the PNE she did however acknowledge that that the nuclear test "would have been useful for elections" (Goldblat 1985: 114). Indeed, the domestic consequences of the test were very rewarding. The public support for Mrs. Gandhi increased by one-third in the month after the nuclear test according to the Indian Institute of Public Opinion, leading the Institute to conclude that "both Mrs. Gandhi and the Congress Party have been restored to the nation's confidence" (Sagan 1996-97: 68).

Thus, there are several critical gaps in the neo-realist explanation of the Indian delay in testing after the 1964 Chinese nuclear test. Neo-realism is not able to factor in several domestic pulls and pressures and bureaucratic wrangling that delayed the Indian test despite India possessing all the requisite know-how to conduct the test by the mid-to-late 1960s (Central Intelligence Agency 1965: 4-5). Though, during the 'weapon option' phase Realism only provides a convincing explanation for the developments during the 1964-66 period while other developments, particularly the 1974 test are not adequately comprehensible only on account of Realism. It is thus, important to utilise the theories of Governmental Politics to arrive at a holistic understanding of the Indian nuclear decision making between 1962 and 1974.

Graham Allison's Decision Making Theory[‡‡‡]

Graham Allison in his book *Essence of Decision* presented three models for national decision-making, which offers a useful methodology to study the Indian decision to test in 1974 and its timing. Here, the three components of Allison's model, which are the

[‡‡‡] While using Allison's theory to understand the Indian case, only Model I and III will be put to use. This is because the Rational Actor Model (Model I) and the Governmental Politics Model (Model III) are much more useful in explaining the Indian delay in testing rather than the Organisational Politics Model (Model II) which is of limited value.

Rational Actor model, Organizational Process and Governmental Politics, will be examined (Allison 1971, 1991).

Allison bases the Rational Actor Model on the premise that in any foreign policy decision or national decision making, an agent at the outset of his decision ranks all possible sets of consequences according to his goals and objectives, and then he chooses from a possible set of alternatives in the light of those objectives. Every alternative bears different sets of consequences and different assumptions are derived from each alternative. Lastly, Allison suggests that a "rational choice" is made by the decision maker when he selects the best possible alternative as his course of action which maximizes the gains of his decision and minimizes the costs (Allison 1971: 29-30).

The Organizational theory provides the foundation for the second model, that Allison has termed as Organizational Process model or Model II. It "emphasises the distinctive logic, capacities, culture, and procedures of the large organisations that constitute a government" (Allison 1999: 5). According to this Organisational Behaviour Model, what Model I analysts characterise as "acts" and "choices" are thought of instead as *outputs* of large organisations functioning according to regular patterns of behaviour.

The third model called the Governmental Politics model or Model III focuses on the politics of a government. According to this model, events in foreign affairs are characterised neither as unitary nor as organisational outputs. Rather, what happens is understood as a resultant of bargaining games among players in the national government. A model III analyst will pose questions like, which results of what kinds of bargaining among which players yielded the critical decisions and actions? He focuses attention on certain concepts: the players whose interests and actions impact the issue in question, the factors that shape players' perceptions and stands, the established procedure or "action channel" for aggregating competing preferences, and the performance of the players. The analyst invokes certain patterns of inference: if a government performed an action, that action was the result of bargaining among players in this game (Allison 1999: 6).

The Governmental Politics model will be used to analyse the debate that ensued with the politico-scientific community during this period about the path that the Indian nuclear program was to take and how the bureaucratic pulls and pressures worked, if at all, in the decision that was reached to launch the Subterranean Nuclear Explosion Project (SNEP) in the early 70s and conduct the PNE in 1974.

In his book, *Essence of Decision: Explaining the Cuban Missile Crisis 2nd Ed,* Graham Allison (1999) has used an excellent metaphor that brings out the differences among these models.

> "Foreign policy has often been compared to moves and sequences of moves in the game of chess. Imagine a chess game in which the observer could see only a screen upon which moves in the game were projected, with no information about how the pieces came to be moved. Initially, most observers would assume – as Model I does – that an individual chess player was moving the pieces with reference to plans and tactics toward the goal of winning the game. But a pattern of moves can be imagined that would lead some observers, after watching several games, to consider a Model II assumption: the chess player might not be a single individual but rather a loose alliance of semi-independent organisations, each of which moves its pieces according to standard operating procedures. For example, movement of separate sets of pieces might proceed in turn, each according to a routine, the king's rook, bishop, and their pawns repeatedly attacking the opponent according to a fixed plan. It is conceivable, furthermore, that the pattern of play might suggest to an observer a Model III assumption: a number of distinct players, with distinct objectives but shared power over the pieces, could be determining the moves as the resultant of collegial bargaining. For example, the black rook's move might contribute to the loss of a black knight with no comparable gains for the black team, but with the black rook becoming the principal guardian of the palace on that side of the board" (Allison 1999: 6-7).

In this dissertation, to examine the Indian nuclear decision making between 1962 and 1974 and the reasons behind India not testing its nuclear device till May of 1974, Graham Allison's Rational Actor Model (Model I) and Governmental Politics Model (Model III) will be put to use.

Rational Actor Model (RAM) or Model I

According to Allison, in any foreign policy decision or national decision making, an agent at the outset of his decision ranks all possible sets of consequences according to his goals and objectives, and then he chooses from a possible set of alternatives in the light

of those objectives. Every alternative bears different sets of consequences and different assumptions are derived from each alternative. Lastly, Allison suggests that a "rational choice" is made by the decision maker when he selects the best possible alternative as his course of action which maximizes the gains of his decision and minimizes the costs.

The basic unit of analysis in Rational Actor paradigm is governmental action as a "rational choice." Allison states that the rational actor selects the action that will maximize strategic goals and objectives. Allison has based his Model I on a number of assumptions in which action is a form of behaviour that reflects intention or purpose. The assumption is that actor is a national government and the act chosen is a calculated solution to a strategic problem. All these assumptions lead to a coherent set of details which explain as to what goal was perceived by the government when it acted and how that action was a reasonable choice keeping in mind the nation's objectives. He states that

> "The rational action maintains that a rational choice consists of value maximizing adaptation within the context of a given payoff function, fixed alternatives and consequences that are known" (Allison 1971: 31).

According to Allison, the actor (government) is a rational, unitary decision maker. The actor has one set of specified goals, one set of perceived options, and a single estimate of the consequences that follow from each alternative. The action is a steady state choice as perceived by Allison, among alternatives rather than a large number of partial choices in a dynamic stream of events. The Rational Actor model therefore has a unitary (or group) decision maker who is able to state objectives, state preferences among objectives, generate alternative courses of action, assess the consequences of every alternative action of each objective and select the best alternative. Unlike the two other models (which are merely descriptive) this model is normative, that is decision makers should make decisions in accordance with these principles (Allison 1971: 33).

The four basic concepts that make up the Rational Actor Model are Goals and Objectives, Alternatives, Consequences, and Choice (Allison 1999: 18). In this section the four basic principles proposed by Allison that lead towards a rational choice will be explained as

well as they will be put to use to gather an understanding of how Rational Actor Model (RAM) can be applied to the case of India's decision to test in 1974 and not earlier.

Goals and Objectives

The interests and values of the agent are translated into a "payoff" or "utility" or "preference" function, which represents the desirability or utility of alternative sets of consequences. At the outset of the decision problem, the agent has a payoff function which ranks all possible sets of consequences in terms of her or his values and objectives (Allison 1999: 56). Each bundle of consequences will also contain a number of side effects. Nevertheless, at a minimum, the agent is expected to be able to rank in order of preference each possible set of consequences that might result from a particular action.

Whatever decision India was to take was to revolve around her strategic goals and objectives, foremost among them was to balance the Chinese bomb. All strategic goals are achieved in the light of goals and objectives of the decision maker therefore, the primary objective for India after the Chinese nuclear tests being to safeguard her national security. The Chinese nuclear tests signalled a dramatic shift in the balance of power in the region. This was more pronounced because of the fact that the Chinese tests came in quick succession of the emphatic Indian defeat at the hands of the Chinese in the 1962 Sino-Indian border clash.

The '62 border clash had brought to the fore the shortcomings of the Indian conventional might. The Chinese nuclear capability thus meant that India was both conventionally and non-conventionally inferior to the Chinese military capabilities. In the aftermath of the Indian debacle in the '62 war India was already considering increasing its defence expenditure and upgrading its conventional military capabilities. This entailed upgrading its existing stock of arms and ammunition that were of British vintage, improving its lines of communication, acquiring equipment and clothing needed to fight at high altitudes, and upgrading its armoured division (Mullick 1971: 541, 549-551).

Confronted with the Chinese bomb, the Indian leadership had to grapple with this new addition to the Sino-Indian matrix. India now had to decide how to balance the Chinese bomb without going against its traditional policy of opposing development of nuclear weapons. The situation became more difficult for Jawaharlal Nehru to explicate due to the fact that India already possessed all the requisite technological know-how, scientific manpower as well as the plutonium and the associated reprocessing facilities needed to manufacture a nuclear weapon due to its advanced civilian nuclear power programme (Central Intelligence Agency 1965: 4-5).

Alternatives

The rational agent must choose from a set of alternatives displayed before her or him in a particular situation. In decision theory, these alternatives are represented as a decision tree. The alternative courses of action may include more than a simple act, but the specification of a course of action must be sufficiently precise to differentiate it from other alternatives.

There was considerable pressure building up on Nehru as well as Shastri administrations both from within the ruling Congress party as well as the opposition for going ahead and building the bomb.

Therefore, there were only three options available to India:

(a) Go ahead and develop the nuclear weapon as a deterrent to the Chinese bomb.
(b) Search for an international security guarantee or
(c) Continue with the existing policy of opposition to the use of nuclear technology for building nuclear weapons but keep the option open to develop the bomb at a later date.

Each of these choices had consequences attached to them. However, it does not seem that not doing anything was an option before the Indian political leadership given the strong "pro-bomb" domestic pressures that were operating immediately after the Chinese tests.

Consequences

To each alternative is attached a set of consequences or outcomes of choice that will ensure if that particular alternative is chosen. All the above mentioned choices bear different consequences with merits and demerits. Here these options will be elaborated in greater detail, presenting a cost-benefit analysis in each given case.

(a) First Choice: Go ahead and develop the nuclear weapon as a deterrent to the Chinese bomb:

Domestically this was the most favoured option with strong pressures being exerted across the political spectrum to go ahead and develop an Indian nuclear weapon capability given the latent Indian capabilities flowing from the Indian civilian nuclear programme. This pressure extended across Nehru and Shastri administrations and continued even during Indira Gandhi's tenure. However, there were costs and benefits attached to this option. The benefit was that India would in the very near future (most likely by the late 1960s) possess a nuclear deterrent to the Chinese nuclear weapon[§§§] (Central Intelligence Agency 1965: 4-5). The costs on the other hand were twofold; firstly, choosing this alternative meant that India would have to give up its traditional policy of opposing development of nuclear weapons and working for nuclear disarmament. This seemed like a high cost to pay because this policy due to the moral considerations attached to it had provided India with an international standing that was incommensurate with its economic or military might. Secondly, given the poor economic

[§§§] In 1965, U.S. intelligence agencies estimated that India could test a nuclear weapon around the second half of 1966. The rationale that the US posited was that India possessed everything which is required to conduct a nuclear test; from plutonium to plutonium processing plants to weapons design. They had estimated that by 1970 India would possess around a dozen nuclear weapons in the 20 KT range. (Central Intelligence Agency 1965: 4-5)

situation, building a nuclear weapon as well as the delivery and other systems associated with it would have meant an additional burden of at least $1,700million on the Indian exchequer (Patil 1969: 29-32). This was a burden that it would be unable to withstand.

(b) Second Option: Search for an international security guarantee:

Searching for an international guarantee was also an option that was pursued by the Indian leadership. The search for an international guarantee began during Lal Bahadur Shastri's tenure as Prime Minister during his visit to London in December 1964 (The Hindu 1964b: 6). The Indian search then moved from London to Washington to the United Nations. The only positive response to the Indian quest came from the British. The Americans as well as the Soviets were conspicuously silent. However, by May 1965, India was inclined towards a multilateral guarantee rather than a bilateral one. However, as none of the major powers were willing to support the Indian search for a multilateral security guarantee, the proposal lost steam. In an interview in May 1967, Prime Minister Indira Gandhi formally signalled the end of the Indian search for external guarantees by questioning the very credibility of the nuclear guarantee (The Hindustan Times 1967: 6; Noorani 1967: 499).

The search for a nuclear guarantee had its merits as well as demerits. The most obvious merit of the proposal was that upon its materialisation India would not have to develop its nuclear weapon and thus would not have to place the additional burden of building the bomb on the Indian economy. The demerits are two-fold. Firstly, entering into a nuclear security guarantee even if it was to be a multilateral guarantee would be directly contradictory to the Indian non-aligned policy as well as to the Indian opposition to the principle of collective security. A multilateral guarantee is nothing but the most advanced form of collective security. Secondly, it would mean that India would not be self-sufficient in developing its own nuclear weapons despites possessing all the requisite technological capability.

(c) Third Option: Continue with the existing policy of opposition to the use of nuclear technology for building nuclear weapons but keep the option open to develop the bomb at a later date:

Though there was considerable opposition to the continuation of the existing policy of opposing development of nuclear weapons, it did have its benefits. By keeping the nuclear weapon option open, India could at any time in the future when the need arose, launch a crash nuclear weapon development program. On the other hand it would also not be seen as giving up its traditional policy that had in the past generated immense goodwill for India in the international community. There were however, costs associated with this choice too. This was not having a nuclear deterrent against the Chinese and thus remaining susceptible to any future nuclear blackmail in the event of a conventional war between the two countries.

Choice

Rational choice consists simply of selecting that alternative whose consequences rank highest in the decision maker's payoff function.

After weighing the three options, India saw the third option as having the highest payoff function. It allowed the continuation of the traditional policy but with a slight difference that nuclear weapons could be developed in the future. This shift was reflected in Shastri's speech to the Lok Sabha on 27 November 1964 (Lok Sabha Debates, Vol. 35, 3rd Series 1964: 2287). It was in the course of this speech that Shastri in the most ambiguous fashion opened the door to the bomb without it seeming that India was giving up its traditional policy of opposition to building a nuclear weapon. This provided the decision makers with the flexibility they desired and also took care of the security concerns in the long term.

Governmental Politics Model or Model III

Allison's Governmental Politics model or Model III focuses on the politics of a government. According to this model, events in foreign affairs are characterised neither as unitary nor as organisational outputs. Rather, what happens is understood as a resultant of bargaining games among players in the national government. "Outcomes, Allison says, "are formed, and deformed, by the interaction of competing preferences" (Allison 1999: 18). In contrast to Model I, the Governmental Politics Model sees no unitary actor but rather many actors as players: players who focus not on a single strategic issue but on may diverse intranational problems as well; players who act in terms of no consistent set of strategic objectives but rather according to various conceptions of national, organisational, and personal goals; players who make government decisions not by a single, rational choice but by the pulling and hauling that is politics (Allison 1999: 255).

Going on to deal with the various actors who form the apparatus of each national government, Allison says, that each national government constitutes of political leaders at the top who are joined by top officials of major organisations, departments. Some of these actors might be mandatory, some might be invited and others might elbow their way in. Beyond this central arena that is comprised of the top politicians and administration officials, there are successive, concentric circles encompassing lower level officials, the press, the NGOs, and the public. Allison says that "ongoing struggles in outer circles help shape decisions among players who can affect the government's choice and action in the case in question" (Allison 1999: 256, 258)

The reason why the Governmental Politics model is a useful one to study events in foreign affairs is due to the fact that several actors are involved in decision making and policy formulation in any government. Simply put, individuals share power. They differ about what must be done and these differences matter. This milieu necessitates that government decisions and actions result from a political process. Foreign policy is thus the extension of politics to other realms (Allison 1999: 256).

The questions that a model III analyst will pose would be like: what kinds of bargaining among which players yielded the critical decisions and actions? An analyst who studies Governmental Politics focuses attention on certain concepts: the players whose interests and actions impact the issue in question, the factors that shape players' perceptions and stands, the established procedure or "action channel" for aggregating competing preferences, and the performance of the players. The analyst invokes certain patterns of inference: if a government performed an action, that action is the result of bargaining among players in this game (Allison 1999: 6).

The Governmental Politics Model is extremely useful to analyse the Indian nuclear decision making process leading upto the actual decision to conduct the Peaceful Nuclear Explosion because of the involvement of multiple actors in the process and pressures that they were operating under. The various actors involved in the Indian nuclear decision making can be broadly classified under the following heads: domestic political and scientific leadership, domestic public opinion, and economic considerations. Each of these actors has several pressures operating upon them at all times and simultaneously has their own sets of national, organisational and personal goals.

Domestic Political and Scientific Leadership

Fractures in a largely unified Indian domestic political leadership began to emerge after the Indian defeat at the hands of the Chinese in the 1962 border clash. These fissures began to widen after the Chinese nuclear test in October 1964 and the death of Jawaharlal Nehru. Both sections of the ruling Congress party as well as the Opposition led from the front by the Jana Sangh, demanded a thorough review of the country's security policy, including consideration of the atomic bomb option. This was seen, as being necessary as the previous Nehruvian approach of extending a friendly hand towards China and following a policy of opposition to the use of nuclear technology for the development of nuclear weapons was perceived as having brought no tangible benefit to Indian security.

Domestically, the debate on what course the Indian nuclear program was to take after the Chinese tests led to the formation of "pro-bomb" and "no-bomb" lobbies. The pro-bomb lobby consisted of a section of the political elite and the press, vociferously led by Bhabha and the leaders of the Opposition parties like the Jana Sangh and the Prajatantra Socialist Party. They were aided by a section of the Congress party leaders and the Indian military. Senior leaders of the Congress Party like Lal Bahadur Shastri and Y.B. Chavan were opposed to the idea of India developing nuclear weapons.

The domestic nuclear debate centred on the question of giving up the traditional Indian policy of opposition to nuclear weapons, the value of the nuclear deterrent and the ensuing burden on the national exchequer that was already reeling under the food crisis and a very slow growing economy. Yielding to the pressures, Prime Minister Shastri agreed to create a classified project to develop an ability to detonate a PNE within 6 months of any final political decision (Bhatia 1979: 120-122; Ramanna 1991: 74). It is not unlikely that Shastri considered a change in the nuclear policy as a result of demands from amongst the ranks of the Congress party vociferously supported by the Opposition, fuelled in part by Bhabha's statements that developing nuclear weapons was both economically and technically feasible (The Hindu 1964a: 1; Jain 1974: 159).

However, immediately after Bhabha's death in January 1966, the situation was altered, with Bhabhba's successor Vikram Sarabhai, who was opposed to the development of any Indian nuclear explosives, whether they were called PNEs or bombs, and ordered a halt to the SNEP program (Ramanna 1991: 75).

The "pro-bomb" lobby again became active after Sarabhai's death and lobbied Mrs. Gandhi to give the go-ahead for the Peaceful Nuclear Explosion (Ramanna 1991: 89). However, differences of opinion existed even within the small cabal that was to take the final decision on the PNE. While P. N. Dhar was vehemently opposed to the PNE on the grounds of its disastrous implications for the Indian economy, P. N. Haskar felt that it was not the proper time to conduct the test. Two other members of the group, Dr. Nag Chaudhary and Dr. Raja Ramanna were in favour of the PNE and put forth the

proposition that the experiment could not be postponed as it had already reached a very critical stage with substantial investment of time and financial resources had already been invested in it. Indira Gandhi acceding to the logic of the "pro-bomb" lobby reasoned that India required such a demonstration (Ramanna 1991: 89).

Thus, as is apparent from the above description, there were a lot of domestic actors involved in the Indian decision to conduct the PNE. Each of these actors involved had their own pull and pressures operating upon them which they brought into the matrix. Thus, the final Indian decision was reached as a result of bargaining along regular circuits among players positioned hierarchically within the government.

Domestic Public Opinion

National newspapers are the main source of gauging the prevailing public opinion. In the aftermath of the 1964 Chinese tests, though the Indian newspapers did not come out immediately in support of an Indian deterrent, the articulation of such views did pick up pace in the early half of 1965 (Bhatia 1979: 126). Lal Bahadur Shastri's decision to authorise a the formation of a group to Study Nuclear Explosion for Peaceful Purposes (SNEPP) too was taken in face of a mounting domestic pressure both from within the Congress ranks as well as the opposition in support of the "weapon option" (Ramanna 1991: 74).

At the time she gave the go ahead to conduct the PNE experiment, Indira Gandhi too was under immense public pressure. She was also confronted with a poor economic situation, high rates of inflation and an acute shortage of commodities of daily use. She also had to deal with factionalism developing within the Congress party and regional opposition to the Centre's attempts to influence the course of developments in the Congress party politics in the states (Roy 1974: 115-120). There was disgruntlement in many states including Andhra Pradesh, Bihar, Uttar Pradesh, and Gujarat. National domestic unrest such as the rail strikes across the country added to the chaos that Indira Gandhi faced. It can thus be hypothesised that Mrs. Gandhi probably thought it to be a very good option to

revitalise her sagging political fortunes and silence the discontent building against her (Goldblat 1985: 114).

Economic Considerations

Limited economic resources had meant a difficult balance had to be struck between the security concerns and the demands of sustaining national development. However, after the 1962 debacle and the 1964 Chinese tests the need to increase defence spending was felt. Hence, the Indian political leadership was faced with the dilemma of proper allocation of the available resources between the needs of development and compulsions to increase defence spending.

The economic situation in the late 1950s was very bad. This was further compounded by bad monsoons that led to a bad performance by the agricultural sector. By 1961, the foreign exchange reserves had fallen to £85million from £573million in 1956. It was the timely World Bank assistance of over £794million that prevented the Third Five Year Plan (1961-1966) from being either postponed or being abandoned altogether (Bhatia 1979: 124-125).

Lal Bahadur Shastri's popularity and support within the Congress echelons suffered in face of the severe food crisis and his opposition to the demands for putting in place an Indian deterrent to the Chinese bomb. However, like Indira Gandhi, Shastri too was debating upon the additional burden that a nuclear weapons programme would mean for the already weak Indian economy. In 1968, it was estimated that a small but significant nuclear force, comprising of 30 to 50 jet bombers, 50 medium range missiles and 100 plutonium warheads would cost at least $1,700million if spread over a period of ten years (Patil 1969: 29-32). This was an enormous burden that the Indian economy given its fragile situation would not be able to bear.

Indira Gandhi too was not unaware of the economic implications of the SNEP program. Speaking to the Lok Sabha on 24 April 1968, she said that "We think that nuclear

weapons are no substitute for military preparedness involving the conventional weapons. The choice before us involves not only the question of making a few atom bombs, but of engaging in an arms race with sophisticated nuclear warheads and an effective missile delivery system. Such a course, I do not think would strengthen national security. On the other hand, it may well endanger our internal security by imposing a very heavy economic burden which would be in addition to the present expenditure on defence. Nothing will serve the interests of those who are hostile to us than for us to lose our sense of perspective and to undertake measures which would undermine the basic progress of the country" (Selected Speeches of Indira Gandhi 1982: 372-374).

It is evident that the Indian nuclear decision making process during this period was constantly being subjected to pulls and pressures that were emanating from the domestic politico-scientific leadership on one hand and the general public opinion on the other. At the same time, such a decision could not overlook the poor economic situation that was prevailing in the period. Thus, the ground situation was much more complex than the simple explanation put forth by the Neo-Realists that Indian security concerns required it to build a deterrent to the Chinese nuclear bomb is lacking on several fronts. Most importantly, neo-realism is not able to sufficiently explain the delay in Indian testing after the Chinese test in October 1964. It does not provide a clear explanation to the question as to why the Indian leadership did not launch a crash weapons program and take it to its logical conclusion. It is here that Graham Allison's theory of Decision Making and his Rational Actor Model and Governmental Politics Model are of such significance.

CHAPTER II

POLICY OF AMBIGUITY

In the years preceding 1974, continuing till the 1998 nuclear tests, India's nuclear policy has been perceived and described in the West as one of "strategic ambiguity". The ambiguous element surrounding this policy has been deliberate and calculated. It has allowed India to "pursue multiple objectives, including a principled stand on global disarmament, following a fairly autonomous foreign and security policy, building up a substantial defence capability, and an elevated status internationally" (Ollapally 2001: 930).

The following chapter attempts to understand and explain the delay in India's testing of its nuclear device after the Chinese test in 1964. In this chapter an attempt will be made to test out the hypothesis as to whether the delay in Indian testing was resultant of the Indian attitude towards arms control, and the concerns towards nuclear weapons. It will also be studied as to how much contribution to this state of affairs was due to the lack of, if any, of scientific and strong central political leadership after the death of Homi Bhabha and Jawaharlal Nehru in close succession.

The chapter begins by tracing out the historical evolution of India's nuclear policy. This section will elucidate how the freedom movement and Mahatma Gandhi's ideas had an overbearing influence on the policies that Jawaharlal Nehru formulated. It was under this influence that Nehru formulated the policy of opposition to the development of nuclear weapons which was complemented by and active support for working towards a comprehensive, global nuclear disarmament. However, as successive sections will show, working with Homi Bhabha and his personal belief in advancement of a newly independent India through use of science and technology made Nehru more perceptive to the fact that a peaceful nuclear programme was of extreme importance to India's future economic development. It was a combination of these countervailing influences that laid the foundations of an ambiguous nuclear policy that India pursued.

The next section will undertake a content analysis of several important statements and speeches mostly made by Prime Minister Jawaharlal Nehru and Homi Bhabha, mainly because they were by far the most influential personalities involved in the Indian nuclear decision making. Studying their statements is also important due to the fact that they were the brains behind infusing ambiguity into Indian nuclear policy making. It could be hypothesised that they perhaps realised the utility of ambiguity because they knew that given the international scenario, India would otherwise not be able to acquire nuclear technologies. Both Nehru and Bhabha had no doubts in their minds about the importance of possessing nuclear technology both for meeting India's energy needs in the future and as statements will show, for its deterrence potential (Karnad 2002; Perkovich 2000; Abraham 1999).

This will be followed by an analysis of the rise of the domestic "pro-bomb" lobby that was a result of the 1962 Indian defeat in the Sino-Indian border dispute. The next section will deal with the aftermath of the Chinese nuclear tests. It was the debate which followed the Chinese tests in conjunction with the discriminatory nature of the NPT treaty and the nature of the American involvement in the 1971 Indo-Pak war that resulted in an ambiguous policy shift which opened the doors for the 1974 Peaceful Nuclear Explosion (PNE) without it seeming that India was giving up its twin Nehruvian ideals of opposing development of nuclear weapons and supporting nuclear disarmament.

Historical evolution of the Indian Nuclear Policy

Historically, under Nehru's leadership the Indian nuclear policy placed emphasis upon an active support for nuclear disarmament and peaceful uses of the nuclear technology in the Indian nuclear program. Such a policy was an indication of the influence that the Indian independence movement had on the political leaders of the period immediately following independence. The greatest influence that can be seen in this case has been that of Mahatma Gandhi. Gandhiji's abhorrence of the atom bomb has been well known. Writing in the *Harijan*, Gandhi describes the development of the atom bomb as "deadening the

finest feeling that has sustained mankind for ages." He went on to say, "the moral to be legitimately drawn from the supreme tragedy of the bomb is that it will not be destroyed by counter bombs even as violence cannot be by counter violence. Mankind has to get out of violence only through non-violence" (Atom Bomb and Ahimsa 1991: 220-221).

The importance that the Gandhian philosophy had on the Indian nuclear policy can be seen in the speech that Prime Minister Jawaharlal Nehru made at the United Nations General Assembly session in Paris on 3 November 1948. At this session Nehru evoked the Gandhian theme to underscore India's moral opposition to the development of nuclear weapons. Speaking at the Assembly, he said, "I am not afraid of the bigness of great powers, and their armies, their fleets and their atom bombs. That is the lesson which my Master (Gandhi) taught me. We stood as an unarmed people against a great country and a powerful empire" (Jawaharlal Nehru India's Foreign Policy, Select Speeches, September 1946- April 1961 1961: 165).

During the early 1950s a period that can be characterised as one of intense idealism, the main points that Nehru always stressed at international and national for a was firstly, that atomic programs should be exclusively focussed on peaceful purposes and secondly, that national governments should retain control over their atomic programs. Nehru strongly attacked all attempts of setting up an international authority to regulate the development of nuclear energy, referring to such plans as "atomic colonialism" and criticized the major powers for their continued belief that nuclear weapons would bring greater security. Nehru also sought to highlight the urgency of nuclear disarmament (Jawaharlal Nehru India's Foreign Policy, Select Speeches, September 1946- April 1961 1961: 191-195). In 1954 he proposed a "Standstill Agreement" among the Nuclear weapon states. In a 2 April speech before Parliament Nehru urged the nuclear weapons powers, pending progress toward elimination of weapons of mass destruction, to discontinue production and stockpiling of nuclear weapons, to inform world public opinion about the destructive power of these weapons, and to raise the issue within the UN Disarmament Commission (Jawaharlal Nehru India's Foreign Policy, Select Speeches, September 1946- April 1961 1961: 187-191). During this period, India presented eight separate disarmament

initiatives, either individually or jointly, within various bodies of the UN* (Abha Dixit 1996: 58-59).

The mid to late 1950s saw a slight shift in the Indian government's position. This was reflective of the changes that were taking place in the international arena. Most importantly, with the Soviet Union possessing thermonuclear capability, Washington and Moscow now shared an interest to ensure that horizontal proliferation did not take place. This was reflected in the creation of the International Atomic Energy Agency (IAEA) in 1957 and subsequently the signing of the Partial Test Ban Treaty (PTBT). The Indian decision to sign the PTBT was criticised at home, but, India believed that if PTBT could be universalised, it would be a boost to its efforts at nuclear disarmament (Jawaharlal Nehru Speeches 1968: 4). Nehru was however wary of the IAEA and cautioned that IAEA should not be used to deny technology to any state wishing to pursue peaceful uses or become the nuclear non-proliferation watchdog (Jawaharlal Nehru Speeches 1961: 191-195).

A Content-Analysis of various speeches and statements

Between 1962 and 1974 the principles governing India's nuclear policy came under attack. During this period India's global disarmament approach began to fade as it could not keep pace with changing events. Only four disarmament initiatives were presented to the UN during this period (Abha Dixit 1996: 64). The defeat at the hands of the Chinese in the border war of 1962 which was followed by the Chinese nuclear test in Lop Nor on 16 October 1964, forced a change in the Nehruvian model. *Realpolitik* demanded a

* These included, a draft resolution on "Peaceful Uses of Atomic Energy," submitted to the General Assembly at its third session in 1948; a draft resolution on "Declaration on the Removal of the Threat of a New War and the Strengthening of Peace and Security Among Nations" at the fourth session in 1949; communication of the Standstill Agreement and proposals contained therein to the UN secretary general on 8 April 1954; inclusion of the item "Dissemination of Information on the Effects of Atomic Radiation and on the Effects of Experimental Explosions of Thermonuclear Bombs" at the tenth session in 1955; note verbale from the Indian representative at the UN to the chairman of the Disarmament Commission proposing steps for "Cessation of All Explosions of Nuclear and Other Weapons," 25 July 1956; a draft resolution on the "Composition of the Disarmament Commission" at the twelfth session in 1958; a request for an agenda item "Suspension of Nuclear and Thermonuclear Tests" at the fourteenth session in 1959; and a draft resolution, "Directives on General and Complete Disarmament," also at the fourteenth session, 1959.

thorough review of the country's security policy, including consideration of the atomic bomb option. This was seen, both in sections of the ruling Congress party as well as in the Opposition as being necessary as the previous approach was perceived as having brought no tangible benefit to Indian security. Meanwhile, negotiations on the Nuclear Non-Proliferation Treaty (NPT) in the UN's Eighteen Nation Committee on Disarmament (ENDC) that were seen as discriminatory and inimical to India's security concerns created additional tensions that led to calls for reappraising nuclear policy.

An understanding of the roots of ambiguity which seems intrinsic to the workings of the Indian nuclear decision making has to factor in the international scenario in which India was born into. With the Cold War rivalries' beginning to influence the way international relations was conducted by the great powers, India immediately upon its independence was forced by the existing international climate, to look for an exclusive space in which it could articulate its foreign policy independently without being caught up in the bloc rivalry between the United States and the Soviet Union. The search such a space ended for India with the adoption of non-alignment as a tool of foreign policy. Thus, to understand the ambiguity in the Indian nuclear decision making, it is crucial to keep in mind the Cold War environs, a nascent India was thrown into and how this affected the position it took at various international arms control and disarmament forums and the civilian nuclear programme it pursued domestically.

India's nuclear decision making apparatus has always been very exclusive and this fact has a lineage which dates back to the period immediately following independence when the entire structure of nuclear policy making had centred around the then Prime Minister Jawaharlal Nehru and his trusted aide Dr. Homi Bhabha, who went on to become the Chairman of the Atomic Energy Research Committee and later Secretary of the Department of Atomic Energy (DAE). The personal charisma of Nehru in both domestic and international affairs and his blueprint for a modern India in which atomic energy played an important role coupled with his strong conviction that India would not divert the civilian nuclear technology for building nuclear weapons, had a major impact on the

manner in which Bhabha's plutonium quest was looked upon by the international community (Perkovich 2000: 15).

However, closer scrutiny reveals that the ambivalence in statements made in relation to Indian nuclear efforts had begun in this period itself, despite Nehru's overt declarations and the general direction of his policies which gave utmost importance to improving the social conditions prevalent in India and as a result did not warrant a large defence related expenditure. However, a statement made by Nehru on 20 January 1957, while inaugurating the Atomic Energy Establishment, Trombay (AEET) is a telling example of such statements, which went a long way in keeping India's options open at a later date.

> "No man can prophesy about the future. But, I should like to say on the behalf of my Government, myself and I think I can say it with some assurance of behalf of any future Government of India, that whatever might happen, whatever circumstances, we shall never use this atomic energy for evil purposes..." (Patil 1969: 49).

Though the above statement paints a very telling picture of Nehru's deep-seated dislike for nuclear weapons, one cannot afford to miss the initial phrase of the speech, which leaves the door ever so slightly open for manoeuvrings at a later date. In an earlier speech of Jawaharlal Nehru dating back to 1946, he says that:

> "As long as the world is constituted as it is, every county will have to devise and use the latest scientific devices for its protection. I have no doubt that India will develop her scientific researches and I hope Indian scientists will use the atomic force for constructive purposes. But if India is threatened she will inevitably try to defend herself by all means at her disposal (Norman 1965: 186).

This statement reveals several aspects of Nehru's thinking. It is interesting to note that even though India was still a colony of Britain, Nehru could envisage the potential threats and also foresee the enormous good nuclear technology could do to the status and prestige of a newly independent country like India. And, implicitly, in stating what India would do in the future, he also seems to see himself as a statesman and leader of the country.

Another important instance where Nehru displays the understanding he possessed of the dual nature of atomic power was several years later, in a note written on a memo submitted by Bhabha. Nehru is also reported to have written a note to the effect that: "Apart from building power stations and developing electricity there is always a built-in advantage of defence use if the need should arise" (Kapur 1976: 194).

The ambiguous nature of the Indian nuclear pronouncements is brought out most clearly than anywhere else is a conversation that is described in the Kenneth Nichol's *Road to Trinity*. The three actors in the said conversation are Nehru, Bhabha and Kenneth D. Nichols.[†] Nehru's conversation with Bhabha during the meeting as narrated by Nichols is a telling one.

> "Can you develop an atomic bomb? Bhabha assured him that he could and in reply to Nehru's next question about time, he estimated that he would need about a year to do it...." (Nichols 1987: 352).

The most startling fact that comes out in the above conversation is the fact that Nehru, despite his pronouncements to the contrary about not ever developing an atomic bomb was in fact thinking about the same. Being an astute statesman, Nehru understood the deterrence value of the nuclear weapon and even though seemingly he did not want India to ever go down the path of acquiring one, he fully comprehended the power that came with having one. A statement that Nehru made on 30 January 1958, when the United States was thinking of stationing nuclear weapons in the sub-continent, either in Pakistan or some other country, is proof of the fact that Nehru understood the deterrence potential of a nuclear weapon (Perkovich 2000: 35). The following statement outlining how India would deal with such a situation, can possibly seen as one of the earliest pronouncements of nuclear deterrence by India.

> "We have the technical know-how for manufacturing the atom bomb. We can do it in three of four years if we divert sufficient resources in that direction. But, we have given the world an assurance that we shall never do so. We shall never use our knowledge of nuclear science for purposes of war" (Mirchandani 1968: 231).

[†] Nichols was an American engineer who had been actively involved in the Manhattan project. He later served as a top military official in the US nuclear establishment. He was in India as a consultant to Westinghouse to discuss plans for building India's first nuclear power reactor.

The trend that is observed here continues throughout the narrative of the Indian nuclear programme. It almost seems that there are two "Indias" at work here, where the first India is working in relation to the world at large and making the correct noises at various international forums, pushing for disarmament; and there is the second India which is suffering for a dichotomy and a resultant ambiguity at the international stage, given the kind of seemingly contradictory statements made by leaders at the domestic level and the arguments made by India at various arms control and disarmament forums. The second India is always steered by a select few, consisting of at the onset, only Nehru and Bhabha and later of few top officials at the Prime Minister's Office (PMO) and the Chairman and few others at the Department of Atomic Energy (DAE)[‡] (Kapur 1976: vii-viii).

Rise of the Domestic Pro-Bomb lobby

During the Kennedy administration, domestically things took a turn for the worse in India. With the building up of tensions between India and China culminating in the war between the two countries, a conflict where India emerged as the defeated losing over 14,000 square miles of territory which China occupies till date (Rao 1991: 205). The tensions started mounting up with India building forty-five outposts of its army in mid 1962 in the Ladakh region, an action that saw the Chinese building up their defences along its side of the McMohan line.

By a strange coincidence, the Sino-Indian border conflict was taking at the same time as of the Cuban missile crisis. This led to a situation where, the United States and the Soviet Union had their hands full and thus did not pay too much attention to the Sino-Indian border dispute. However, with President Kennedy's public announcement of the missile crisis on 22 October 1962, the Soviets scrambled to gather support and this resulted in a situation where they took the side of Beijing in the crisis. It argued that "India was being

[‡] The argument of two "Indias" has been made by Ashok Kapur in his book *India's Nuclear Option: Atomic Diplomacy and Decision Making.* (Kapur 1976: vii-viii)

incited by imperialists," and that "McMohan line was a notorious result of British imperialism that could not be considered valid" (Prozumenschikov 1996-1997: 251-255).

India understood that Moscow was taking such a line to placate Beijing and thereby build up its support base, nevertheless, it alarmed Nehru. India approached the United States on 26 October 1962 with a formal request for urgent military aid. India received twelve squadrons of U.S. fighters, two squadrons of B-47 bombers, an airlift of infantry weapons and light equipment (Kux 1994: 207). Nehru however requested President Kennedy not to request for a military alliance as a quid pro quo as he believed that the policy of non-alignment had to be maintained regardless. The war ended quite abruptly with China declaring a unilateral cease-fire on 21 November 1962. Nehru was quite shaken up with the whole incident and said, "We were getting out of touch with reality in the modern world and we were living in an artificial atmosphere of our own creation" (Hoffman 1990: 165).

The immediate fallout of the Indian defeat in the 1962 war was that, questions arose in the Parliament and elsewhere about the Nehruvian articulation of the Indian stand which was not to use the civilian nuclear technology to develop nuclear weapons. It was in December 1962 that the first questions arose in the Parliament on the issue. The Jana Sangh Party made the first formal demand in the Parliament for India to reverse its declared policy and produce nuclear weapons[§] (Mirchandani 1968: 239). The question that was being asked of Nehru at this point of time was whether, in his scheme of things India was to for ever give up its right to possess nuclear weapons. In response to this Nehru made a statement saying:

> "To be quite practical, either you have a very powerful deterrent or you achieve little practical value with nuclear weapons. It is no good having something showy, it will not have the slightest effect on India as such, if the Chinese have a test tomorrow we are not going to make bombs, although we are in nuclear science more advanced than China" (Mirchandani 1968: 22).

[§] It was the Jana Sangh Party that in its later avatar came to be known as the Bharatiya Janata Party, which under the leadership of the then Prime Minster Atal Bihari Vajpayee conducted India's second nuclear tests in May 1998.

However, the questions did not stop coming. The domestic "pro-bomb" lobby was growing stronger after the '62 war and was becoming increasingly vociferous. In the months after the Sino-Indian conflict Nehru faced his first serious challenge in the Parliament on the nuclear issue. Most of the members questioned the Nehruvian idea of not utilising the nuclear technology at India's disposal for weapons purposes. During this period doubts arose which challenged the ingenuity of pursuing the existing policy both in light of the '62 war and the reports that were beginning to trickle in about the possibility of Chinese nuclear tests in the near future. During a Lok Sabha discussion on 25 March 1963, the Jana Sangh leader, Ramachandra Bade, made a plea for developing nuclear weapons saying:

> "Only those who wish to see Russians or Chinese ruling India will oppose the development of nuclear weapons. I beg the Prime Minister to make full use of our research in atomic energy" (Bhatia 1979: 108-109).

It was not as if these challenges posed any serious threat to Nehru's Prime Ministership. They however did begin to chip away at the hold that Nehru possessed over the workings of the Indian politics given his immense popular support base. Nehru was however, quite unfazed and he continued to profess for peaceful uses of atomic energy. He took the moral high ground in response to these questions. His statement quoted below brings this out quite clearly:

> "On the one hand, we are asking the nuclear powers to give up their tests. How can we, without showing the utter insincerity of what we have always said, go in for doing the very thing which we have repeatedly asked the other powers not to do?" (Mirchandani 1968: 23)

During this period, following the 1962 war, though there were serious security concerns before the polity, which emanated from the defeat India had suffered at the Chinese hands; the India polity had to balance these concerns vis-à-vis the demands which developmental efforts made on the Indian exchequer. The main issue thus before the polity was that of balancing national development vis-à-vis strengthening the military might of the country. As mentioned earlier, the central focus of the political leadership was always ensuring continued social and economic development; but, in the wake of the

1962 war it became imperative that India's conventional military might also be strengthened. Thus, the most difficult question that the country's political leadership was faced with was about the proper allocation of the resources at hand between the needs of development and increased defence spending.

However, the roots of this problem ran deeper into the very structure of the Indian polity. A democratic country like India had to take into account several factors like the existing economic situation, concerns of major powers in the international system, before taking a decision on how to respond to the Chinese threat. Thus, as opposed to China, a democratic India could ill afford putting its nuclear programme on an accelerated trajectory like the Chinese did. The question one could ponder here is whether the poor economic condition coupled with the debate that was beginning to heat up on the course that our nuclear program was to take, led to the ambiguity in India's nuclear decision making.** A state of affairs, that led India to take almost ten years before it conducted its first Peaceful Nuclear Explosion (PNE).

Chinese nuclear tests and aftermath

Many events occurred in quick succession in 1964 that altered the course of the Indian nuclear policy. The first event was Nehru's death in May 1964 and his replacement as Prime Minister by Lal Bahadur Shastri. Then, before Shastri could take any steps to consolidate his position, on 16 October 1964, China tested its first nuclear device. The debate that ensued in India following the Chinese tests and the compromise that was reached reeks of the ambiguity that has surrounded India's nuclear decision making. These few months, bring out various factors that have shaped India's nuclear policy for decades to follow.

The Chinese nuclear test sent shockwaves across the political and security community within India and abroad. In India the debate on what course the Indian nuclear program

** The impact of the prevailing economic conditions on the Indian nuclear programme and the Indian decision to conduct the PNE will be dealt in detail in Chapter III – Internal and External Dynamics.

was to take after the Chinese tests raged between the "pro-bomb" and the "no-bomb" lobbies. The pro-bomb lobby consisted of a section of the political elite and the press, vociferously led by Bhabha and the leaders of the Opposition parties like the Jana Sangh, the Samyukta Socialist Party (SSP) and the Prajatantra Socialist Party (PSP). They were aided by a section of the Congress party leaders and the military that played a very unobtrusive role. The anti-bomb lobby was led by the senior leaders of the Congress Party like Lal Bahadur Shastri and Y.B. Chavan and was aided by leaders like M. R. Masani of the Swatantrata Party.

The following paragraphs will outline the arguments propounded by the two sides supporting their cases. This will be done by making references to various speeches and important statements made by the key actors.

During the Pugwash Conference on Science and World Affairs at Udaipur held from 27 January to 1 February 1964 which addressed the "Current Problems of Disarmament and World Security" Bhabha presented a paper that very subtly revealed the strategy and motivation behind the nuclear program that he had outlined for India in the 1950's. He said:

> "Nuclear weapons coupled with an adequate delivery system can enable a State to acquire the capacity to destroy more or less totally the cities, industry and all important targets in another State. It is then largely irrelevant whether the State so attacked has greater destructive power at its command. With the help of nuclear weapons, therefore, a State can acquire what we may call a position of absolute deterrence even against another having a many times greater destructive power under its control" (Bhabha 1964: 75).

The above statement shows a very clear understanding of the deterrence potential of nuclear weapons. It is worth noting here that Nehru in a very early statement answering a question on the possibility of having American nuclear weapons stationed in Pakistan, had similarly showed a clear understanding of the deterrence potential of the nuclear weapons. However, it was not as if Bhabha's statement quoted above was a generic description of nuclear deterrence. Even though the statement came prior to the Chinese nuclear test, it was tellingly focussed on China, reflecting a much more nuanced

understanding on Bhabha's part about the strategic environment existing in the region and the role that the nuclear weapons were to play. Later in the paper, he elucidates this:

> "A country with a huge population, such as China, must always present a threat to its smaller neighbours, a threat they can only meet either by collective security or by recourse to nuclear weapons to redress the imbalance in size" (Bhabha 1964: 78-79).

However, again giving a glimpse of the ambiguity that is so intrinsically a part of the nuclear debate and discourse during this time Bhabha immediately changed tack and said that the onus of the choice that India makes rested on the two nuclear superpowers. He said that if "any State is to be asked to renounce a possible dependence on nuclear weapons to redress the balance of power against a larger and more powerful State not having nuclear weapons, such as China, its security must be guaranteed by both the major nuclear powers" (Bhabha 1964: 75-76). One cannot but think that Bhabha's case would have been much stronger had China already tested nuclear weapons. There were numerous statements made by Bhabha during this period that oscillated between standpoints that it would be prudent for India to go ahead with the nuclear programme to take on the Chinese threat to propounding a view that the two nuclear powers by providing a security guarantee could influence India's nuclear future.

Nehru's death on 27 May 1964 removed an important and dominant actor from the stage of Indian politics. It was Nehru's presence at home and abroad that had helped India assume a global presence that was incommensurate with India's economic and military potential.

Within a month of Shastri assuming power in June 1964 India's nuclear weapon potential rose significantly with the first spent fuel from the CIRUS research reactor entering the plutonium reprocessing plant at Trombay. The West has always maintained that it was the weapons grade plutonium contained in this spent fuel that gave India the vital material from which it manufactured the 1974 PNE (Canadian Department of Foreign Affairs and International Trade 1999: 6). This is a charge that India has always denied. Writing in *Asian Survey*, Mr. Rikhil Jaipal, Indian Permanent Representative to the UN

refuted such charges saying that "India did not do anything illegal by conducting the PNE and that it does not wish to manufacture and use nuclear weapons" (Jaipal 1977: 46). Secondly in the summer of 1964, the threat of a Chinese nuclear test loomed large over the Indian establishment. This fuelled a lot of debate on the nature of response that India would put forth to the Chinese test. It was keenly debated whether India would shift from its current stand of unequivocal pledge not to use atomic energy for military purposes in the event of a Chinese test. It was with the Dean Rusk statement of 29 September 1964 where he announced that "the U.S. expected China to conduct an atmospheric nuclear test in the near future," that the debate heated up (Mirchandani 1968: 242).

Shastri and Bhabha were destined to clash as both of them were articulating opposing points of view on the case. Bhabha was trying to whip up pressure on the government for going ahead with the bomb. On 4 October 1964 he made one of his most famous statements saying that, "India could explode an atom bomb within eighteen months of a decision to do so," but added that, "I do not think that such a decision would be taken" (The Hindu 1964a: 1). Shastri on the other hand attending the Second Non-Alignment Nations Conference held from 5-10 October 1964 in Cairo was urging leaders to persuade China from developing nuclear weapons. He added that India's nuclear establishment was "under firm orders not to make a single experiment which is not needed for peaceful uses of atomic energy" (Yadav 1971:152).

The Chinese nuclear test was conducted on 16 October 1964. With this the domestic debate intensified on the rationale of pursuing a peaceful nuclear programme when there was a latent potential that existed to develop nuclear weapons. On 18 October 1964, Nath Pai, the leader of the Samyukta Socialist Party, made a statement at a press conference that, "India should actively consider acquiring a nuclear deterrent of its own." He urged "corrective measures to enable the country to regain its lost prestige in the comity of nations" (The Indian Express 1964: 5). However, what has to be kept in mind is the fact that the opposition was seizing the issue of the Chinese test to challenge the overall leadership of the Shastri government.

Eight days after the Chinese test, during an All India Radio broadcast, Bhabha said that "atomic weapons give a state possessing them in adequate number a deterrent power against attack from a much stronger State" (Jain 1974: 159). He went on to state that not only were the weapons easy to develop for India, but they were relatively cheap to develop.

The result of this statement was that it led to a split in opinion within the Congress party, which until now had been cohesively pushing the Nehruvian argument that India would not use atomic technology for military purposes. The first important leader to split with the party view openly was the president of the Delhi Pradesh Congress Committee, Mr. Mushtaq Ahmed, who urged that the only course for India is to produce her own bomb to defend herself. The Jana Sangh was also not left far behind. In its weekly magazine, Organiser, it too started upping its ante on the issue by saying that:

> "The eunuch government decided years ago in its ahimsic idiocy to spend crores on nuclear power but not use the same crores on developing the nuclear bomb. When had the chance to do it before China did it and so we could tell that we meant business and that we were ahead of China. In our criminal folly we missed it" (Poulose 1978: 105).

Opposition attacks on the government's no-bomb line were manageable. However, the serious threat came from within the Congress party itself. It was thought that coupled with the no-bomb policy and the inability to solve a major food crisis, Shastri had lost much of his popularity and support within the Congress. With the domestic challenges lurking in the background, the debate on India's nuclear policy continued to intensify. A U.S. Embassy cable recorded an Indian Ministry of External Affairs official's statement that "pressures within the government to develop its own bomb were building up" (Central Intelligence Agency 1965: 6).

A very important meeting of the Indian cabinet had just taken place. In the six hour long meeting on nuclear policy, External Affairs Minister Swaran Singh and the Minister for Railways S.K. Patil had supported Bhabha's view advocating a nuclear weapon-building program with only two cabinet members Defence Minister Y.B. Chavan and Food and Agriculture Minister C. Subramaniam opposing it. It was reported that discussions had

gone far enough for Shastri to authorise Bhabha to come up with an estimate of what was involved in India's attempting an underground explosion (Perkovich 2000: 70).

The next big challenge that lay before Shastri was the All India Congress Committee meeting from 7 to 9 November 1964. It was expected that there would be a heated debate on the government's nuclear policy in the meeting. But, no one expected what followed. When the AICC gathered, the party leaders received a petition signed by one hundred members urging a closed debate on the nuclear issue, wherein a large number of the petitioners would demand that India acquire an "independent nuclear deterrent to protect herself against any possible threat from China" (Rangaswami 1964: 1).

On 17 November Bhabha sought to rectify the impression that he supported acquisition of nuclear weapons. He said that India was being stampeded into developing a nuclear arsenal because China had detonated a nuclear device. He sought to rectify the impression that he supported the acquisition of nuclear weapons. He however did not back down on his statement about the cost-effectiveness of nuclear weapons (Perkovich 2000: 75).

When the Lok Sabha met on 23 and 24 November 1964 to debate India's foreign policy speaker after speaker criticised the government's policy on the nuclear issue. Most of the speakers questioned the future viability of the Gandhian-Nehruvian approach of non-violence and India's singular approach to international affairs and its application in the nuclear arena. Nath Pai of the Samyukta Socialist Party said that,

> "Instead of making a very dispassionate and calm assessment of the Chinese possession of this dangerous, deadly weapon, we have been indulging once again in sentimental platitudes, confusing the whole issue and unnecessarily dragging Mahatma Gandhi, Jawaharlal Nehru, Lord Buddha and even Ashoka in to the debate.India should go all out to use nuclear power for the defence of the country ... there is no need for seeking any security assistance from the US" (Lok Sabha Debates, Vol. 35, 3rd Series 1964: 1240).

Responding at the end of the debate Prime Minister Shastri criticised the notion that moral consideration alone determined the government's resistance to building nuclear weapons. He said that practical and realistic factors dictated a cautious and restrained

approach. He added that the cost of a major nuclear-weapon program would have a disastrous effect on the already weak economy. At the end of his speech Shastri declared that the non-weapon policy was subject to change, but did so in the characteristic ambiguous manner that had driven Indian nuclear policy till date. He said:

> "I cannot say that the present policy is deep-rooted, that it cannot be set aside, that it can never be changed...An individual may have a certain static policy... but in the political field we cannot do so. Here situations alter changes take place, and we have to mould our policies accordingly. If there is a need to amend what we have said today, then we will say - all right, let us go ahead and do so" (Lok Sabha Debates, Vol. 35, 3rd Series 1964: 1563-1577).

Unfortunately for Shastri the tentative policy shift announced on 24 November 1964 did not satisfy his critics. He came under more fire on 27 November 1964, which proved to be a momentous day in the history of India's nuclear policy. The Jana Sangh introduced a motion in the Parliament calling for the manufacture of nuclear weapons. Shastri managed to win a voice vote against the resolution.

Notwithstanding his general disavowal of nuclear weapons for India, Shastri's speech revealed a crucial, largely unnoticed, change in policy. He said that India could produce a nuclear bomb within "two or three years" if necessary, but reaffirmed the commitment of India's nuclear establishment to peaceful work only.

Then for the first time, he mentioned that this work should entail preparations of peaceful nuclear explosives for purposes such as tunnelling through mountains. He quoted Bhabha in his speech and said:

> "Dr. Bhabha has made it quite clear to me that as fast as we can progress and improve upon nuclear devices, we should do so, as far as development is possible, we should resort to it so that we can reap its peaceful benefits and we can use it for the development of our nation ... Just assume that we have to use big tunnels and we have to clear huge areas, we have to wipe out mountains for developmental parks, and in this context if it is required to use nuclear devices for the good of our country as well as for the good of the world, so then our Atomic Energy Commission is pursuing these same objectives" (Lok Sabha Debates, Vol. 35, 3rd Series 1964: 2287).

Prime Minster had in the most seemingly ambiguous fashion opened the door to the bomb. However, technically, there was nothing ambiguous about the whole matter as there is little distinction between a rudimentary nuclear weapon and a peaceful nuclear explosive.

Shastri's shift was an important turn but was only a half-turn. India's nuclear policy had not been where Bhabha had wanted it for a long time, on a course leading to nuclear explosives. This however, fell short of an explicit commitment to nuclear weapons. The shift occurred as a result of Bhabha proposing directly to Shastri the notion of moving ahead to prepare for a peaceful nuclear explosion (Perkovich 2000: 82).

The best way to account for Shastri's shift is to study the domestic politics within the Congress party. The severe food crisis had made a huge dent on Shastri's hold over his colleagues. The 1962 debacle and the 1964 Chinese tests had placed a huge question mark over the Congresses' handling of security issues. Shastri and the Congress could not seem to appear weak to defend India's national pride and honour. Thus, it was only an ambiguous policy that could do so much and so little at the same time.

If the Indian defeat in the 1962 Sino-Indian war followed by the Chinese nuclear test in 1964 saw the rise of the domestic pro-bomb lobby. However, it was the NPT negotiations which were initiated at the Eighteen Nation Disarmament Commission, in the form of the Irish draft resolution of 1959 that weakened the pro-bomb lobby. As the NPT negotiations panned out, it became clearer that the idea of a universal commitment to nuclear weapons elimination was giving way to a plan for preventing the acquisition of nuclear capability by "other" nations. India saw the situation where major powers were targeting horizontal proliferation, while not attempting to curb vertical proliferation in any manner as being inherently discriminatory. Such a discriminatory non-proliferation agenda that was emerging among the major powers saw the position of the domestic no-bomb lobby weakening considerably.

It was in such a complicated scenario, that the Shastri and Indira Gandhi governments created a shift in the Indian nuclear policy, where from a position of "no-bomb" it became a position of "no-bomb now" (Manekar 1973: 201). Although the shift was not large, it nevertheless provided future governments the necessary opening to create an all-encompassing nuclear policy. Domestically, there was a intense ongoing political debate surrounding the Indian nuclear program and its future course. The pro-bomb lobby grew and became more vigorous (Abha Dixit 1996: 59).

Pressurised by the both the pro-bomb and no-bomb lobbies and simultaneously grappling with the manner in which the NPT negotiations were panning out and the position India was to take, the Indira Gandhi government sought refuge in ambiguity. While speaking in the Indian Parliament on 24 April 1968, she reiterated India's traditional condemnation of nuclear weapons but also leaving the option open, arguing that weaponization should never be ruled out. In an earlier speech on 14 March 1968, the Prime Minister, had announced India's decision not to sign the NPT in its existing form as it was inherently discriminatory. Her statement to the Indian Parliament on 24 April 1968 sought to placate everyone- leftists, right-wing nationalists, academics, scientists, and intellectuals.

> "[Our] policy is framed after due consideration of the national interest, specifically with regard to national security. . . this policy, as well as all policies bearing on security, is kept under constant review. But we do feel that the events of the last twenty years clearly show that the possession' of nuclear weapons have not given any military advantage in situations of bitter armed conflict."
>
> "We think that nuclear weapons are no substitute for military preparedness involving the conventional weapons. The choice before us involves not only the question of making a few atom bombs, but of engaging in an arms race with sophisticated nuclear warheads and an effective missile delivery system. Such a course, I do not think would strengthen national security. On the other hand, it may well endanger our internal security by imposing a very heavy economic burden which would be in addition to the present expenditure on defence. Nothing will serve the interests of those who are hostile to us than for us to lose our sense of perspective, and to undertake measures which would undermine the basic progress of the country" (Selected Speeches of Indira Gandhi, January 1966-August 1969 1982: 372-374).

Indira Gandhi's statement shows that the Indian government was keen to stay a few notches away from overt weaponisation, thus retaining the option to change course in the future. In an earlier debate in Parliament, Mrs. Gandhi had categorically declared "we

have stated that the Government for India does not propose to manufacture nuclear weapons. This is a decision taken many years ago and is unrelated to the treaty on non-proliferation of nuclear weapons" (Selected Speeches of Indira Gandhi, January 1966-August 1969 1982: 370-372). Nonetheless, it was clear that a major threshold had been passed, and New Delhi was moving towards the development and testing of a nuclear device.

CHAPTER III

INTERNAL AND EXTERNAL DYNAMICS

The Indian responses to the Chinese nuclear test and the security challenges it posed were manifold. The immediate fallout of the Chinese nuclear weapon was the rise of the domestic "pro-bomb" lobby that comprised of scientists like Homi Bhabha and parties like the Jana Sangh, the Prajatantra Socialist Party (PSP) and the Samyukta Socialist Party (SSP). The rise of this lobby, led to a heated domestic debate on the rationale of sticking to the current Indian policy of opposition to use of peaceful nuclear technology for building nuclear weapons.

This chapter will track India's response to the Chinese nuclear test in October 1964. For ease of study the dynamics/responses will be divided into two parts. The first part which will trace out the internal responses which will study the development of India's indigenous nuclear program which seemed as if it was increasingly being geared up to meet the security challenges that the Chinese nuclear test had thrown up. The second part of the chapter will trace out the external responses which can mainly be narrowed down to the Indian government's attempt to secure external security guarantees from the nuclear weapon states. Simultaneously, the chapter will make an attempt to examine the linkages between the two Indian responses.

The domestic debate on the rationale of pursuing a peaceful nuclear programme and not pursuing the nuclear weapon option resulted in two sets of responses. The first was the movement towards an Indian nuclear deterrent that began with opening the door on the bomb in an ambiguous fashion which finally culminated in Indira Gandhi's decision to go ahead with the peaceful Nuclear Explosion (PNE) in 1973. The manifestations of this response were seen firstly in Shastri's speech to the Indian Parliament on 27 November 1964 (Lok Sabha Debates 1964: 2287). It was subsequently noticed in the Prime Minister Shastri's decision to give the go-ahead to the Subterranean Nuclear Explosion Project (SNEP) in November 1965 (Ramanna 1991: 74; Perkovich 2002: 29). The decision of the Indira Gandhi government to keep the option of developing the nuclear weapon open

which can be gathered from her speeches to the Indian Parliament on 14 March and 24 April 1968 (Selected Speeches of Indira Gandhi, January 1966-August 1969 1961: 370-374). Mrs. Gandhi finally took the decision to go ahead with the Peaceful Nuclear Explosion (PNE) in 1974 (Ramanna 1991: 89).

The second set of responses follow a broad pattern of India searching for an external security guarantee against the use or threat of use of nuclear weapons by the Chinese. The search for a security guarantee was initiated during Prime Minister Shastri's visit to London in December 1964 (The Hindu 1964b: 6). At first India left the issue of a security guarantee to be considered and to be offered to the nuclear powers. Later it lobbied for it at the UN where it modified its quest for the security guarantee to fit in with the Kosygin formula. The proposal was subsequently taken out of the U.N. and feverishly explored in Moscow and Washington. Finally, when none of the nuclear powers came ahead with any kind of a security guarantee, Mrs. Gandhi brought the quest to a close by openly questioning its credibility.

As the previous chapter brought out, a half turn was executed in the Indian nuclear policy which began with Lal Bahadur Shastri's speech to the Indian parliament on 27 November 1964. This policy found resonance in Indira Gandhi's 24 April 1968 speech before the Lok Sabha. However, between 1964 and 1968 there were many factors that had important roles to play in determining the path that the Indian nuclear programme took.

In the years between the first Chinese nuclear test in 1964 and Indira Gandhi's decision to go ahead with the PNE in 1974, several factors influenced the Indian nuclear decision making either positively or negatively. This chapter while describing the Indian progress towards developing a nuclear deterrent will also study the impact these factors had on the decision making process.

The factors that influenced the Indian nuclear decision making process during this period fall broadly into three categories. The first category is of the "Domestic Economic Situation" the second is the "Internal Political Situation" and the third is the "The

Domestic Scientific Capability and Leadership" Each of these factors exerted pulls and pressures on the nuclear decision making process. At various points of time they either speeded up or slowed down the Indian nuclear weapons programme as well as the search for a deterrent against the Chinese nuclear weapon.

Domestic Economic Situation

The sharp increase in defence expenditures after the 1962 border clash with China and the subsequent war with Pakistan in 1965 put the Indian economy under severe strain. The two consecutive droughts in 1966 and 1967 exacerbated the situation further (Dhar 1988: 6). The situation was made worse by the loss of Prime Ministers Nehru and Shastri and Homi Bhabha in quick succession. The crisis was principally the result of firstly, the inter-sectoral imbalance between the agricultural and industrial sector, and secondly, the underestimation of foreign aid requirements. The availability of the US Public Law (PL) 480 supplies had resulted in a relative neglect of agriculture (Morris-Jones 1966: 68-70).

The above circumstances and mounting US pressure, led to the Indian decision to devalue the rupee in 1966. The Indira Gandhi government explaining to the Parliament as to why the decision to devalue the rupee was necessary said:

> "The action could not be postponed as all further aid negotiations hinged on it. It is extremely doubtful whether, without demonstrable evidence of our determination and capacity to push up our exports and improve the internal viability of our economy, we shall continue to get external credits" (Sundaram 1972: 1129).

The devaluation however did not bring in the expected results. In 1966-67 the export earnings went down by eight percent. Moreover, the aid package from the World Bank and other international lending institutions also did not materialise. The Indian effort at mobilising aid finally ended during the Nixon administration when there was an outflow of $120 million as a result of the famous "Nixon tilt" (Dhar 1988: 8).

Before the Fourth Five Year Plan was completed, India was confronted with the Bangladesh crisis of 1971. This was followed by the drought in 1972 and the oil crisis of

1973. All these factors combined with the general slow rate of growth, sharp increase in inflation, growing population pressure and rising unemployment further exacerbated the dismal domestic economic situation (Mishra and Puri 1996: 605-606).

The general economic situation that prevailed during this period following the 1962 war confronted the Indian decision makers with the dilemma of making a proper allocation of the meagre economic resources between the needs of development and increased defence spending. It is thus evident that the grim domestic economic situation did influence the government's delay in giving a complete go-ahead to the scientific establishment to proceed with the SNEP programme and consequently the PNE.

The Domestic Scientific Capability and Leadership

Domestically, the debate on what course the Indian nuclear program was to take after the Chinese tests led to the formation of the "pro-bomb" and "no-bomb" lobbies. The pro-bomb lobby consisted of a section of the political elite and the press, vociferously led by Bhabha and the leaders of the Opposition parties like the Jana Sangh, the Samyukta Socialist Party (SSP) and the Prajatantra Socialist Party (PSP). They were aided by a section of the Congress party leaders and the military that played a very unobtrusive role. The anti-bomb lobby was led by senior Congress Party leaders like Lal Bahadur Shastri and Y.B. Chavan.

The domestic nuclear debate centred on the question of giving up the traditional Indian stand of opposition to nuclear weapons, the ensuing value of the nuclear deterrent and the cost that such a program would place on the national exchequer which was already reeling under the food crisis and a very slow growing economy. After a lot of acrimonious debate, as a compromise, Prime Minister Shastri agreed to create a classified project in 1965 to develop an ability to detonate a PNE within 6 months of any final political decision* (Bhatia 1979: 120-122; Ramanna 1991: 74). It is probable that Shastri

* Raja Ramanna led the group that was formed to study the possibility and benefits of nuclear explosions. This group was called the Study Nuclear Explosion for Peaceful Purposes (SNEPP). In his book *Years of*

considered a change in the nuclear policy as a result of the Congress demands for nuclear weapons, fuelled in part by Bhabha's statements that developing nuclear weapons was both economically and technically feasible (Jain 1974: 159).

However, with Shastri and Bhabha's death in close succession the SNEP suffered a major setback. Bhabhba's successor Vikram Sarabhai was opposed to the development of any Indian nuclear explosive, whether they were called PNEs or bombs, and ordered a halt to the PNE preparation program (Ramanna 1991: 75).

Soon after Sarabhai's death in 1971, the "pro-bomb" lobby which had suffered a setback with Sarabhai's ascendancy to the AEC began to lobby with the Prime Minister Indira Gandhi, to give the go-ahead for the Peaceful Nuclear Explosion (Ramanna 1991: 89). However, things were not very smooth even within the small cabal that was to take the final decision on the PNE as there were considerable differences even within this small group. Two members of the group, P. N. Dhar and P.N. Haskar were vehemently opposed to the PNE as they felt it would have disastrous implications for the Indian economy and also that it was not the proper time to conduct the test. The two other members of the group, Dr. Nag Chaudhary and Dr. Raja Ramanna were in favour of the PNE and emphasised that the experiment could not be postponed as it had already reached a very critical stage and considerable time and financial resources had already been invested in it. The Prime Minster Indira Gandhi took the side of the scientists. The reason she gave for the PNE to be carried out on schedule was that India required such a demonstration (Ramanna 1991: 89).

Internal Political Situation

In the aftermath of the 1964 Chinese tests, there was enormous pressure on the Shastri administration from the "pro-bomb" lobby to change the Indian nuclear policy (Bhatia 1979: 126). Lal Bahadur Shastri's decision to authorise the formation of the group to

---

Pilgrimage: An Autobiography, Raja Ramanna wrote "getting the Prime Minister to agree to this venture must have required great persuasion, as Shastriji was opposed to the idea of atomic explosions of any kind." (Ramanna 1991: 75)

Study Nuclear Explosion for Peaceful Purposes (SNEPP) too was taken in face of a mounting domestic pressure both from within the Congress ranks as well as the opposition in support of the "weapon option."[†] (Ramanna 1991: 74)

At the time she gave the go ahead to conduct the PNE experiment, Indira Gandhi too was under immense public pressure. She was faced with a poor economic situation that had been compounded by the cost of the wars that were fought with Pakistan in 1965 and again in 1971. Inflation rates were high and there was an acute shortage of commodities of daily use. Apart from this there was widespread factionalism developing within the Congress party, leading to a situation where many states were openly questioning the Centre's attempts to influence the course of developments in the Congress party politics in the states (Roy 1974: 115-120). Consequently, there were political crisises of sorts in many states including Andhra Pradesh, Bihar, Uttar Pradesh, and Gujarat. This was exacerbated by an increasing domestic unrest as apparent in the rail strikes across the country at that time. It can thus be hypothesised that Mrs. Gandhi probably thought conducting the PNE to be a very good option to revitalise her sagging political fortunes[‡] (Goldblat 1985: 114).

Internal Dynamics – The Push for an Indian Deterrent

In the aftermath of the Indian defeat in the 1962 border clash with China and the subsequent Chinese nuclear test in October 1964, the pro bomb group was vociferously lobbying for an Indian deterrent to the Chinese nuclear weapon. To placate the mounting domestic pressures, Prime Minister Shastri made a half turn by announcing to the Indian Parliament on 27 November 1964 that:

> "Dr. Bhabha has made it quite clear to me that as fast as we can progress and improve upon nuclear devices, we should do so, as far as development is possible, we should resort to it so that we can reap its peaceful benefits and we can use it for the development

[†] Raja Ramanna, *Years of Pilgrimage: An Autobiography*, New Delhi, Viking, 1991, p. 74.
[‡] Though Mrs. Gandhi did deny that domestic concerns influenced her decision to conduct the PNE she did however acknowledge that that the nuclear test "would have been useful for elections." (Goldblat 1985: 114).

> of our nation ... Just assume that we have to use big tunnels and we have to clear huge areas, we have to wipe out mountains for developmental parks, and in this context if it is required to use nuclear devices for the good of our country as well as for the good of the world, so then our Atomic Energy Commission is pursuing these same objectives" (Lok Sabha Debates 1964: 2287).

This statement in the Lok Sabha in an ambiguous way opened the door to the pursuit of the bomb. Consequently, in November 1965, Prime Minister Shastri also authorised the Subterranean Nuclear Explosion Project (SNEP) (Ramanna 1991: 74). Raja Ramanna in his book *Years of Pilgrimage: An Autobiography* wrote that "getting the Prime Minister to agree to this venture must have required great persuasion, as Shastriji was opposed to the idea of atomic explosions of any kind" (Ramanna 1991: 74).

It was due to this simultaneous development which made it possible for the Indian leaders to keep the "weapons option" open. The shift in the Indian nuclear policy could not have materialised had India not made considerable progress in its nuclear programme in the preceding months. The following pages trace out the development of the Indian nuclear programme that was going ahead simultaneously.

In 1954 the Indian nuclear program had begun to move in a direction that would eventually lead to establishment of nuclear weapons capability. On 3 January 1954 the AEC decided to set up a new facility - the Atomic Energy Establishment, Trombay (AEET). On 3 August 1954 the Department of Atomic Energy (DAE) was created with Dr. Bhabha as the Secretary (Mirchandani 1968: 226). This department reported directly to the Prime Minister and has continued to do so up to the present day.

In 1955 construction began on India's first reactor, the 1 MW Apsara research reactor, with British assistance.[§] (Abraham 1999: 85) India also managed to secure both American and Canadian assistance to further its peaceful nuclear programme. In an agreement with the Canadians which was signed in August 1955, after more than a year of negotiations it was agreed that Canada would supply India with a research reactor - the 40 MW Canada-India Reactor (CIR) (Bhatia 1979: 92). Consequently, under the

[§] Itty Abraham, *The Making of the Indian Atomic Bomb: Science, Secrecy and the Postcolonial State*, New Delhi, Orient Longman, 1999, p. 85.

Eisenhower Administration's "Atoms for Peace" program the US agreed to supply 21 tons of heavy water for this proposed reactor in February 1955 (Chellaney 1993: 36). As a result of the trilateral cooperation between India, Canada and the United States in the construction of the reactor it was re-christened – Canada, India Reactor U.S. (CIRUS).

The acquisition of CIRUS was made with the understanding that the reactor would only be used for peaceful purposes (the heavy water contract at least made this explicit), it occurred before any international safeguards for nuclear reactors were applied. India was careful to ensure that no effective regulation would accompany the reactor. Refusing to accept fuel from Canada for the reactor and India set up a program to manufacture the natural uranium fuel for CIRUS indigenously so as to keep complete control of the plutonium produced there. This program, led by metallurgist Brahm Prakash, succeeded in developing the techniques for producing the precisely manufactured, high purity material demanded by the reactor (Chengappa 2000: 84).

The Atomic Energy Establishment, Trombay was formally inaugurated by Nehru on 20 January 1957 (Mirchandani 1968: 230). It acquired its present name – Bhabha Atomic Research Centre (BARC) – on 12 January 1967 when Indira Gandhi renamed it in memory of Dr. Bhabha who died in an airplane crash on 24 January 1966 (Mirchandani 1968: 250).

Apsara, fuelled by enriched uranium from the UK, went critical on 4 August 1956, becoming the first operating reactor in Asia outside of the Soviet Union (though only days ahead of Japan's first reactor). CIRUS achieved criticality at BARC on 10 July 1960 (Department of Atomic Energy 2003: 28-30).

In July 1958 Nehru authorized project Phoenix to build a plant with a capacity of 20 tonnes of fuel a year - sized to match the production capacity of CIRUS. The plant was based on the U.S. developed Purex process and an American firm, Vitro International prepared the plans for it. Construction of the plutonium plant began at Trombay on 27

March 1961 and was commissioned in mid-1964 (Department of Atomic Energy 2003: 18; Chengappa 2000: 85).

With the CIRUS reactor and the Trombay plutonium separation plant in place, which were necessary to provide the materials for nuclear weapons underway, Bhabha then turned his attention to acquiring information about nuclear weapons and initiating preliminary studies of weapon physics.

During the early sixties India's anxieties regarding China greatly increased. Tensions over the border disputes with China rose from 1959 onwards, leading to large scale troop deployments by both sides in early 1962. By 1961 India had become aware of China's nuclear program which gave greater impetus to India's efforts (Bhatia 1979: 108). In January 1962, Bhabha set up a formal study group in high pressure physics at TIFR, headed by Prof. A.K. Asundi, to begin work on understanding the high pressure physics involved in nuclear explosions and calculating the vital equation of state. This was a necessary step for designing implosion weapons. This group did its work in secret, submitting its papers to Bhabha for review (Chengappa 2000: 86).

A number of public indications show India's increasing interest in nuclear arms. On 30 January 1958 Nehru stated that:

> "We have the technical know-how for manufacturing the atom bomb. We can do it in three of four years if we divert sufficient resources in that direction. But, we have given the world an assurance that we shall never do so. We shall never use our knowledge of nuclear science for purposes of war" (Mirchandani 1968: 231).

On 15 September 1962, the Indian Parliament passed the revised Atomic Energy Act giving the central government strict control over all decisions on atomic energy and further tightening secrecy. This act explicitly linked atomic energy and its control to national security, scarcely mentioning civilian applications (Atomic Energy Act 1962: 2-6).

Following India's humiliating defeat to China in the Indo-Chinese border war of October-November 1962, the first formal demand for the development of nuclear weapons was made in Parliament, by the Jana Sangh, in December 1962 (Mirchandani 1968: 239). Bhabha, well aware that a Chinese nuclear test was not far off (his estimate was then 12 to 18 months), also began secretly agitating for a vigorous effort to match China's progress, going so far as to ask Nehru to authorize a nuclear test in Ladakh on the Chinese border (Chengappa 2000: 88-89).

Nehru died on 27 May 1964 and was succeeded by Lal Bahadur Shastri who took office on 2 June. That summer and fall, expectations of a Chinese nuclear test steadily increased. Shastri, a Gandhian, was strongly opposed to pursuing the Indian nuclear option, and Bhabha began making public statements in favour intended to increase public support and political pressure. On 4 October Bhabha restated his estimate publicly that India could build a bomb within 18 months of the decision to do so (The Hindu 1964a: 1). Interestingly, a U.S. National Intelligence Estimate issued on 21 October 1965 thought India capable of developing a weapon in one to three years (Central Intelligence Agency 1965: 2-3). The Special National Intelligence Estimate (SNIE) posited that India could test a nuclear weapon around the second half of 1966. The rationale that the US put forth was that India possessed everything which is required to conduct a nuclear test; from plutonium to plutonium processing plants to weapons design. They had estimated that by 1970 India would possess around a dozen nuclear weapons in the 20 KT range (Central Intelligence Agency 1965: 3).

India's prime nuclear facilities however were bogged down by problems. CIRUS operated erratically after going critical, and India had problems supplying fuel rods of the required purity. CIRUS did not reach full power until 16 October 1963. Likewise the Phoenix plant at Trombay operated unreliably at only a fraction of its rated capacity when it began receiving spent fuel from CIRUS in mid-1964. It was officially inaugurated on 22 January 1965, but produced very little plutonium for years, taking India until 1969 to acquire sufficient plutonium for a single device (Chengappa 2000: 96-97).

In April 1965, Shastri gave Bhabha formal approval to move ahead with nuclear explosive development (Perkovich 2002: 29). On 5 April 1965 Bhabha initiated the effort by setting up the nuclear explosive design group Study of Nuclear Explosions for Peaceful Purposes (SNEPP). He selected Raja Ramanna - Director of Physics at AEET - to lead the effort (Ramanna 1991: 74).

In 1965 the second major war in three years involving India, was fought. The war was fought in three phases. First Pakistani forces moved in to the Indian marshland of the Rann of Kutch in April. India attempted to repulse the incursion, but the rainy season threatened isolation of Indian troops, leading to its withdrawal. Thus emboldened by this first probe Pakistan attacked an Indian outpost in Kargil, Kashmir. India counterattacked and seized territory that had been held by Pakistan. Shastri agreed to a ceasefire and withdrew from Pakistani territory, and adopted a conciliatory stance regarding the Rann of Kutch - widely regarded as a weak stance in India. On 1 September Pakistan launched a massive armoured assault on Kashmir. This attack pushed into Indian held Kashmir and threatened Srinagar but then ground to a halt. On 6 September India counterattacked south of Kashmir driving 15 miles into Pakistan, threatening Lahore (Manekar 1973: 146).

Despite superior U.S. supplied arms (especially armour) in Pakistani hands, India maintained a strong position on the battlefield. On 17 September China, which had supported Pakistan throughout the conflict - even alleging Indian aggression in the face of a Pakistani assault, attempted to involve itself directly by threatening Indian positions on the Tibetan border (Dixit 2002: 157; Cha 2003: 465). India firmly resisted Chinese pressure, supported by both the U.S. and the USSR.

The outcome of the war did a great deal to strengthen India's long-term resolve to acquire nuclear weapons. The alliance between U.S. armed Pakistan and nuclear-armed China posed a security threat that India could not ignore. Though India did find some support from the Superpowers vis-à-vis Chinese pressure, India discovered that in face of an unprovoked attack - foreign "even handedness" cut off supplies and aid to both the sides,

indicating that India could not expect external aid if faced with a similar threat in future (Dixit 2002: 160).

It seems clear that at this point Bhabha felt he had the authority to go ahead with developing and perhaps even testing an actual nuclear device, since in the wake of the war he seemed satisfied with the SNEP program. Homi Sethna, then head of the AEC, has stated that Shastri told Bhabha during the war to go ahead with development but to hold off testing unless he had clearance from the cabinet.** (Chengappa 2000: 102)

On 11 January 1966, just hours after he had signed the Tashkent Declaration formalizing the end of hostilities in the war with Pakistan, Shastri died of a heart attack (Manekar 1973: 162). Two weeks later on 24 January 1966, and the very day Shastri's successor Indira Gandhi was sworn in as Prime Minister, Dr. Homi Bhabha was killed while on a trip to Europe when the plane in which he was flying collided with Mount Blanc (Ramanna 1991: 75). India's impressively large nuclear establishment was suddenly left without any official plan or policy, to give it direction.

Under Bhabha, the drive toward building the infrastructure developing nuclear explosives had come from the nuclear scientists themselves – and not from the civilian government, and certainly not from the Indian military which was completely absent from the planning or decision making. The numerous positions held by Bhabha were distributed among the top scientists working on SNEPP, like Ramanna and Sethna, but the principal successor to Bhabha was Vikram Sarabhai personally chosen by Indira Gandhi to be Chairman of the AEC, and Secretary of the Department of Atomic Energy (Kapur 1976: 195; Ramanna 1991: 75).

At his first press conference after taking over as the head of the DAE, Sarabhai said "Paper tigers do not provide security. If you want to rely on the atom bomb for safeguarding your security... it is not achieved by exploding a bomb" (Jain 1974: 178-

** Raj Chengappa, *Weapons of Peace: The Secret Story of India's Quest to be a Nuclear Power*, New Delhi, Harper Collins Publishers, 2000, p. 102.

180). In June 1966 Sarabhai ordered a halt to SNEPP, and the confiscation of the papers that had been generated on the project. It appears that this was Sarabhai's personal decision, rather than a reflection of Mrs. Gandhi's policies at this time, and he may not have even consulted with her on it (Ramanna 1991: 75).

In 1966 India's diplomatic policy towards nuclear weapons made a fateful shift. While international interest in non-proliferation, was focusing on restricting the spread of nuclear weapons to any additional states, India's Nehruvian policy of broadly supporting arms control measures developed a pointed new emphasis. Speaking at the ENDC, Indian negotiator V.C. Trivedi advocated non-proliferation and nuclear disarmament as long as it was universal - that no club of permanent nuclear powers should be permitted. He was opposed to the creation of two classes of states – nuclear "haves" and "have nots" (Jain 1974: 192-193). As long as the existing nuclear powers resisted disarmament, they left other nations like India no choice but to pursue their national interests as they saw necessary. The quid pro quo was clear – India would not eschew nuclear arms unless the existing nuclear states also did also. Prime Minister Indira Gandhi's statement in the Parliament also brought this out very clearly. Mrs. Gandhi said "This fundamental logic led to India refusing to sign the Nuclear Non-Proliferation Treaty and abstaining on 12 June 1968 during the UNGA vote on the NPT. This stand has informed Indian nuclear diplomacy ever since.

By mid 1967 Mrs. Gandhi began to alter her approach towards making weapons. Raj Chengappa in his book *Weapons of Peace* notes that it was Gandhi's interaction with P.N. Haskar that made her modify her views on the bomb (Chengappa 2000: 110-112). Late in 1967 the new effort to develop nuclear explosives got underway at BARC, an effort that would continue uninterrupted until it culminated in the successful nuclear test in May 1974 (Ramanna 1991: 75-76).

Late in 1967 the scientific leadership at BARC led by Homi Sethna and Raja Ramanna undertook a new effort to develop nuclear explosives, one that was larger and intense than any previous efforts. One that would lead to the successful design of a nuclear

device, a device that India would successfully test. It is not completely clear why the Indira Gandhi administration decided to revive the effort and move forward at that time, but due to the convergence of a number of trends perhaps the time simply seemed ripe. China had just exploded a thermonuclear device on 9 May 1966, and had become more belligerent - moving troops into disputed areas and making threats (Mirchandani 1968: 248).

That fall, Rajagopala Chidambaram - then a researcher in molecular biology at BARC - was recruited by Raja Ramanna to investigate the equation of state of plutonium (how its density varies with temperature and pressure) – a knowledge essential for designing an implosion bomb.[††] Other key researcher's who became involved in the project in 1967-68 include P.K. Iyengar, Ramanna's deputy, and Satinder Kumar Sikka, who would lead the development of India's hydrogen bomb in the nineties. The team would eventually grow to between fifty and seventy five scientists (Chengappa 2000: 118-120)

India's nuclear weapons program moved in to full swing with Raja Ramanna at the helm. Throughout the SNEPP and even after, India maintained the stand that the PNE was a peaceful test and India did not wish to build nuclear weapons. It was only in 1994 that for the first time R. Chidambaram, a scientist involved in the 1974 PNE, who later went on to head the DAE called the PNE a bomb. In a 1994 interview, while denying reports of radioactivity releases from the 1974 test explosion, Chidambaram went on to triumphantly assert, "That's how good our bomb was." This was the first time a high official within the Department of Atomic Energy had publicly called the "peaceful nuclear explosion" a bomb (M. V. Ramanna 1998: 5). Raja Ramanna, the leader of the PNE in an interview on 10 October 1997, said "The Pokhran test was a bomb, I can tell you now... An explosion is an explosion, a gun is a gun whether you shoot at someone or shoot at the ground... I just want to make clear that the test was not all that peaceful" (M. V. Ramanna 1998: 5; Prashant 2004: 1).

[††] Chidambaram would later become the chairman of the AEC, and head of India's nuclear weapons program leading up to the 1998 test series.

Between December 1968 and January 1969 P.K. Iyengar visited the Soviet Union with three colleagues and toured the nuclear research facilities at Dubna. He was very impressed by the plutonium fuelled pulsed fast reactor he saw there. The reactor used plutonium as its core and is designed to go super critical in a short time producing all the neutrons in an instant. It is then made to return to its normal state without any explosive release (Chengappa 2000: 121).

Recognizing this, Iyengar set about developing such a reactor for India. The scientific leadership approved the plan in January 1969, the kick-off meeting for this reactor, called Purnima (an approximate acronym for Plutonium Reactor for Neutron Investigation in Multiplying Assemblies), took place in March 1969 (Perkovich 2000: 150). The meeting was Iyengar, Ramanna, Homi Sethna, and Sarabhai. Sarabhai's presence clearly indicates that with or without formal approval, the work at BARC toward weapon design now had Sarabhai's support. Chengappa in his book *Weapons of Peace* indicates that Sarabhai sanctioned ten lakh rupees to begin work on designing the reactor (Chengappa 2000: 123).

1970 saw an expansion of the nuclear weapons program in many ways. Due to the requirements of Purnima the program needed to develop facilities and experience in handling large amounts of plutonium. These were developed under the supervision of P.R. Roy, and work also began on fabricating plutonium metal alloys for the eventual construction of the bomb core. To advance the development of the essential implosion system V.S. Ramamurthy also began performing numerical implosion simulations on an antiquated Soviet Besm 6 computer. (Chengappa 2000: 123-127)

Development of the technology for implosion got underway in April 1970 when Ramanna sent Pranab Rebatiranjan Dastidar, the electronics expert at BARC, to Waman Dattatreya Patwardhan at the Explosive Research and Development laboratory (ERDL), Pune to begin work on the detonation system for the bomb. Patwardhan was well known to the BARC scientists, since he helped them with the explosives tests years before as part of SNEPP. In July, nuclear physicist Dr. Basanti Dulal Nag Chaudhuri took over as

science adviser to the Defence Minister, and as Director of the Defence Research and Development Organization (DRDO). The following month, he and Ramanna began working together to recruit the Terminal Ballistics Research Laboratory (TBRL), located in Chandigarh, to develop the explosive lenses for the implosion system (Chengappa 2000: 100, 127-128).

During 1971 work on weapon design continued. M. Srinivasan working with K. Subba Rao developed models of the fission process on a nuclear bomb, and equations to predict its efficiency. Chidamabaram completed his work on the plutonium equation of state, and Ramamurthy developed computational models of the implosion, nuclear reaction, and disassembly process to predict the devices behaviour. Throughout this period Ramanna and his aide, P.K. Iyengar, held frequent reviews of the projects progress. In April 1971 Nag Chaudhuri appointed Nagapattinam Sambasiva Venkatesan to Director of TBRL with specific instructions to assist in developing the nuclear device. (Chengappa 2000 180-182)

The third war between India and Pakistan was declared on the 3rd of December 1971. The entire war lasted for only two weeks and resulted in the dismemberment of Pakistan with East Pakistan becoming a separate nation now known as Bangladesh. The Indian military campaign in the 1971 war was one of the swiftest in recent military history.

This section will only give a brief overview of the 1971 war as it will be dealt in detail in the next chapter. The roots of the conflict lay in the very creation of Pakistan as a nation in August 1947. Pakistan was made up of two distinct and geographically unconnected parts termed West and East Pakistan. West Pakistan had a heterogeneous populace consisting of the Punjabis, Sindhis, Pathans, Balochis, Mohajirs (Muslim refugees from India) and others. East Pakistan, on the other hand, was much more homogeneous and had an overwhelming Bengali-speaking population.

Although the Eastern wing of Pakistan was more populous than the Western one, political power since independence rested with the Western elite. This caused considerable

resentment in East Pakistan. Sheikh Mujibur Rehman, most forcefully articulated this resentment by forming an opposition political party called the Awami League and demanding more autonomy for East Pakistan within the Pakistani Federation. In the Pakistani general elections held in 1970, the Sheikh's party won the majority of seats, securing a complete majority in East Pakistan. Neither the Yahya regime nor the People's Party were ready to accept the electoral verdict (Dixit 2002: 170-172).

This led to a political turmoil in East Pakistan. Mujibur Rehman's Awami League launched a nationwide programme of civil disobedience. The heavy handedness of the Pakistani army led by General Yahya Khan and his deputy Tikka Khan exacerbated the crisis. On 25 March 1971 Yahya Khan imposed martial law and ordered a crackdown that left thousands of Bengalis dead. Sheikh Mujibur Rehman was arrested and put in jail the very next day. The same day, the Pakistani Army began airlifting two of its divisions plus a brigade strength formation to its Eastern Wing (Dixit 2002: 175).

The crackdown and the continued heavy handedness of the Pakistani Army led to the exodus of more than 10 million refugees (more than half of them Hindus) to neighbouring India. West Bengal was the worst affected by the refugee problem. The refugee crisis placed an enormous economic burden on the Indian state. Repeated appeals by the Indian government failed to elicit any response from the international community and by May 1971, the then Indian Prime Minister, Mrs. Indira Gandhi, decided that the only solution lay in helping Bengali freedom fighters, especially the Mukti Bahini, to liberate East Pakistan (Dixit 2002: 180).

Pakistan finally attacked India on 3 December 1971 reacted with a massive co-ordinated air strike on several Indian Air Force stations in the West. At midnight, the Indian Prime Minister Mrs. Indira Gandhi in a broadcast to the nation declared that India was at war with Pakistan. (Dixit 2002: 209-210; Mishra 1987: 340)

The hostile attitude taken toward India by the U.S. during the crisis had along lasting effect on Indian attitudes. What was most touted by the "pro-bomb" lobby was the fact

that the US had gone ahead with its gun boat diplomacy and had dispatched an aircraft carrier *USS Enterprise* to the Indian Ocean and had made an attempt to coerce India in affairs affecting India's vital interests became a *cause celebre* for advocates of the nuclear option. The fact that President Nixon and Kissinger chose to view India's actions as hostilities aimed at a U.S. ally and thus as an act hostile to the United States, rather than a case of a responsible power coming to the defence of a people being brutally persecuted did not go down too well with the Indian establishment.

Bhabhani Sen Gupta has aptly described the shift in India's views toward the nuclear option in the wake of the 1971 war:

> The Chinese bomb ceased to be the main argument for the Indian bomb, perhaps because of the Chinese inability to help Pakistan in the 1971 war and also because of the initiatives taken by India to normalize relations with China. The arguments for the bomb now were that without it India could not expect to be admitted to the corridors of global power, nor enjoy the status of the dominant regional power; that the bomb might quicken the process of normalizing relations with China; that it would proclaim India's independence of the Soviet Union and compel the United States to change its attitude of hostility or benign neglect (Gupta 1983: 4).

On 30 December 1971 Sarabhai died, and Homi Sethna - already head of BARC - took his place as chairman of the AEC. Thus the only prominent voice in Indian government counselling restraint in pursuing the nuclear option was replaced by one of its most ardent advocates. After Sarabhai's death in 1971, the pro-bomb scientists in the AEC began to lobby Mrs. Gandhi to give the go-ahead for the Peaceful Nuclear Explosion (Ramanna 1991: 89).

By the beginning of 1972 the basic design for India's first nuclear device was complete, and other parts of the program for developing the necessary expertise to implement the design were coming along. During that year the data from operating Purnima (starting in May) began flowing in allowing confirmation and refinement of the device's nuclear design; and the work in plutonium metallurgy reached the point where the device could be successfully fabricated (Menon 2000: 85).

The decision to go ahead and manufacture the device and prepare for a test was made later in the year, while Indira Gandhi was still near the peak of her post-war popularity. Early in the year PM Gandhi had seemed ambivalent about the wisdom of conducting an actual test. But by this time, the internal momentum of the nuclear development program, the now well established popularity of the nuclear option among India's literate urban elite, the lack of any significant restraining counsel, and Gandhi's sense of strength all seem to have combined to make the decision one of when, not if, the test would come. The decision to move forward was made by PM Gandhi on 7 September 1972, a day in which she toured BARC on the occasion of the tenth convocation of the Indian Institute of Technology at Bombay. During this tour she was shown a wooden model of the device. Upon seeing the model she gave the scientists present verbal authorization to construct it and prepare for testing, but not to test it without her explicit approval (Chengappa 2000 116-117).

In keeping with the great secrecy involved in India's efforts to develop and test its first nuclear explosive device, the project employed no more than 75 scientists and engineers working on it in the period from 1967 to 1974. Outside of those actually working on the project, only about three other people in India knew of it - Prime Minister Indira Gandhi, her trusted adviser and former principal secretary P.N. Haksar, and her current principal secretary D.P. Dhar. No government ministers, including the Defence Minister, were informed (Ramanna 1991: 88-89).

Even when the final decision to go ahead with the PNE was taken in 1974 only a small select group was present. This group consisted of P. N. Dhar, who was the Principal Secretary, P.N. Haskar, the former Principal Secretary to the Prime Minister, Dr. Nag Chaudhary, Scientific Advisor to the Defence Minister, H.N. Sethna, Chairman of the Atomic Energy Commission and Dr. Raja Ramanna. P. N. Dhar, who was the Principal Secretary, was vehemently opposed to the PNE as he felt that it would have disastrous implications for the Indian economy. P.N. Haskar, the former Principal Secretary to the Prime Minister felt that the time was not ripe to conduct the test. Dr. Raja Ramanna on

the other hand felt that "it was now impossible to postpone the date at any given the expense, time and the critical stage the experiment had reached (Ramanna 1991: 89).

The Prime Minster Indira Gandhi however sided with the scientists. The reason she gave for the PNE to be carried out on schedule was that India required such a demonstration (Ramanna 1991: 89). At the end of the meeting Mrs. Gandhi simply said "While there may be enough logic for not doing it, I don't accept it. We should go ahead with a test" (Chengappa 2000: 54; Ramanna 1991:89). Though, there is no firm evidence on why Mrs. Gandhi decided to approve the scientists' recommendation to build and test a "peaceful" Indian nuclear device, it could be postulated that domestic pressures did in fact weigh heavily on her decision (Goldblat 1985: 114; Chengappa 2000: 54).

The Indian Peaceful Nuclear Explosion (PNE) was successfully conducted on 11 May 1974. India finally possessed its nuclear deterrent to the Chinese threat. India however chose to maintain an ambiguous nuclear policy and did not weaponise its nuclear weapon capability for another twenty-four years.

External Dynamics - India's Search for External Guarantees

The Chinese nuclear explosion of October 1964 posed a serious security challenge to India. Apart from the security implications associated with the Chinese test, the nuclear weapon also posed a very difficult question to the underlying assumptions of the Indian foreign policy. What made this period all the more difficult was the fact that the Chinese nuclear test came close on the heels of the Indian defeat at the Chinese hands in the 1962 Sino-Indian border war. The Indian defeat had already initiated a chain reaction that had made India re-think these very assumptions. This process was only exacerbated by the Chinese nuclear test on 16 October 1964.

In the aftermath of the 1962 defeat, speaking to the Lok Sabha, Prime Minister Jawaharlal Nehru had said:

> "The imperialist and expansionist challenge if china is not only a challenge to us but to the world, as it is a flagrant violation of international law and practice. If this aggression is tolerated and acquiesced in today, it will continue t be a threat not only to India but also to other countries in Asia and will be a bad precedent for the world" (Jawaharlal Nehru Speeches 1964: 254).

The above statement is indicative of the fact that a re-thinking of the basic principles underlying India's foreign policy was already underway. The policy of peaceful co-existence had come to an abrupt end with the Chinese aggression in 1962. Non-alignment vis-à-vis the two superpowers was however to be continued. This was made clear even during the Sino-Indian border clash, where even though India approached the US with a formal request for military aid, Prime Minister Nehru requested President Kennedy not to request for a military alliance as a quid pro quo as he believed that the policy of non-alignment had to be maintained regardless (Kux 1994: 207).

Thus, the most important question that the Indian leadership was posed with in light of the Chinese nuclear test was whether India should build its own nuclear bomb and thus possess a deterrent to the Chinese threat. This option was strongly supported by the "pro-bomb" lobby. However, there was another significant option that was explored by the Indian government for several months. This was the search for a security guarantee from the other nuclear powers against a Chinese nuclear attack of threat of attack.

One of the first responses to the Chinese nuclear test which came from outside the sub-continent was from President Johnson, who on 16 October 1964, said that "The US reaffirms its defence commitments in Asia. Even if Communist China should eventually develop an effective nuclear capability, that capability would have no effect upon the readiness of the US to respond to requests from Asian nations for help in dealing with Communist Chinese aggression. The US will also not be diverted from its efforts to help the nations of Asia to defend themselves and to advance the welfare of their people" (President Johnson's statement on October 16, 1964 Circular Airgram from the Department of State to Certain Posts 2001: 160). He went on to say that "it would be our policy to provide support to non-nuclear countries threatened by ChiCom "nuclear

blackmail" (President Johnson's statement on October 16, 1964 Circular Airgram from the Department of State to Certain Posts 2001: 160).

The Indian responses to the US President's statement are quite interesting. Showing a remarkable understanding of the Cold War politics as well as the nature of nuclear weapons both the Defence Minister Y.B. Chavan and Prime Minister Lal Bahadur Shastri made statements that implied that they were self-assured about India's territorial integrity in the event of a Chinese nuclear attack. The Prime Minister Lal Bahadur Shastri said that "China alone could not do much damage to India or her position, for any kind of atomic war might become global" (Noorani 1967: 491). The Defence Minister was even more explicit when he said that "If any country uses nuclear weapons, it would not remain a local conflict. It would mean escalation into a major war. If such a war were to break out, we have friends to support us" (Noorani 1967: 491). Earlier, Chavan had mentioned the friends "who would stand behind us": The United States, the U.S.S.R. and the UK. These statements indicate an implied reliance on a tacit guarantee of India's territorial integrity against a Chinese nuclear attack but, the reasons for this self-assurance were not too clear.

However, these statements did nothing to arrest the growing strength of the domestic "pro-bomb" lobby. What was more disturbing was that questions were now being raised from within the Congress Party itself. At the All India Congress Committee meeting held from 7 to 9 November 1964 at Guntur, the party leaders received a petition signed by one hundred members urging a closed debate on the nuclear issue, wherein a large number of the petitioners demanded that India acquire an "independent nuclear deterrent to protect herself against any possible threat from China" (Rangaswami 1964: 1). Using their clout over the party Shastri and other top leaders managed to quell this disagreement, but the incident was an indication of the differences that were arising within the party itself on the question of continuing the traditional policy of opposing development of nuclear weapons.

It was during his visit to the UK in December 1964 that Prime Minister Shastri, raised the issue of an explicit and effective guarantee. On 4 December 1964 during a press conference in London, Shastri stated that "it was for the nuclear powers to discuss some kind of guarantee which was needed not only by India but by all the non-nuclear countries." The *Hindu* editorialising about the status of the Indian quest for a security guarantee wrote "One proposal which has received some attention in Washington and London is for a four-power (US, USSR, UK and France) guarantee against nuclear attack" (The Hindu 1964b: 6). At another press conference, Shastri emphasized that the time had come for the nuclear powers to consider what their attitude should or would be in the case of a threat of nuclear attack on a non-nuclear country.

> "I could not put it in more precise terms. I wanted to throw this idea out for the consideration of the big nuclear powers like the U.S.A. and the U.S.S.R. . . . I have not suggested any kind of special guarantee, but it is for the nuclear powers to consider how to maintain peace in the world" (The Hindu 1964b: 6).

The argument that the non-dissemination of nuclear weapons was primarily the responsibility of the nuclear powers and that India did not feel obliged to canvass actively for a nuclear guarantee was to remain a constant feature in the days that followed.

During his London visit, Shastri said that he had floated the notion of the security guarantee against use or threat of use of nuclear weapons against a non-nuclear weapon states to British Prime Minster Harold Wilson. He said that it was entirely up to Prime Minister Wilson whether or not to take up the matter in his talks with President Johnson. However, speaking to the House of Commons on the issue of his government's response to India's request for a security guarantee against possible nuclear blackmail, Prime Minister Wilson said that "No such request was made and not such undertaking given" (Noorani 1967: 492).

Speaking to the Lok Sabha upon his return from UK Prime Minster Shastri said:

> "India is determined to pursue the path of peace and to work for the elimination of the nuclear menace which faces mankind today. The non-nuclear countries in particular have to give serious thought to this matter and the Government of India are already in touch

> with several other Governments on the subject. Equally, it is the responsibility of the great nuclear powers, particularly the U.S.A. and the U.S.S.R., to think of concrete steps for the elimination of the .threat that overhangs mankind" (Jain 1974: 161-162).

Here again, Shastri emphasized the fact that such an initiative should come from the nuclear powers. While answering he confirmed that he had proposed that the United States and Russia should provide a joint nuclear shield for the non-nuclear powers in his talks with British Prime Minister Wilson. Though he pointed out that he had not used the word "shield," he reiterated that it was the responsibility of the two great powers to "mitigate the dangers and menace" to the non-nuclear powers. Shastri however, mentioned that he had not ascertained the views of the United States and the U.S.S.R. with regard to his suggestion before making it to the British Prime Minister (Jain 1974: 161-162).

A point that came up both during Shastri's UK visit as well as his statement in the Indian Parliament was that the nuclear guarantee which was being sought was not a bilateral one. Such a stand was in good stead with India's non-aligned status. Another point that was added to the issue of the nuclear guarantee in the following weeks was that India could not be singled out for nuclear protection vis-à-vis other non nuclear weapon states.

As A.G. Noorani writes, it soon became quite evident that the suggestion Shastri had made in London while meeting the British Premier Wilson was made without prior consultation with his Foreign Minister, Swaran Singh. Noorani has written that Swaran Singh was quite taken aback by the reports of Shastri's London discussions and said that he "did not believe that a big power guarantee to protect non-nuclear countries against the threat of nuclear aggression is feasible." Later, in London, the Foreign Minister interpreted Shastri's statement in the Indian Parliament as implying "the moral obligation of the world generally" and not any "specific guarantee to India particularly" (Noorani 1967: 492).

The American reaction to Shastri's suggestion was quite cool. Secretary of State Dean Rusk in a State Department telegram asks Averall Harriman[‡‡], on an official Asian tour, to sound out Indian officials on nuclear issues. He says that although Prime Minister Shastri has discussed security guarantees with British Prime Minister Harold Wilson, Indian representatives have yet to raise the subject directly with the U.S. He says that the U.S. does not want to go beyond general public assurances issued by President Lyndon Johnson in October 1964. However, he asked Harriman to review with Indian officials the evidence demonstrating US's capacity and intent to respond in the event of a Chinese nuclear attack (Battle undated [a]: 7).

Prime Minister Lal Bahadur Shastri soon changed tack. In the only press conference he gave during his tenure as Prime Minister he announced that his government had contacted the major nuclear powers on the question of eradicating the menace of nuclear weapons, but that there had not been any response from them so far. Thus, he said that the quest for a guarantee was now to be pursued through the United Nations adding that the most important forum to consider the issue was the United Nations (The Hindu 1965: 1).

The Indian Foreign Minister while attending an informal talk with the members of the Indian Journalists' Association said that India's informal soundings in the United States, the U.S.S.R., and the U.K. had thrown open a "reasonable prospect" of an agreed approach by the three main nuclear countries for protection against an atomic attack. India, he said, had given some thought to the precise shape and scope of the assurance it was seeking and would not hesitate to make a formal proposal on the precise nature of assurances, but it would be no use to discuss it until the major nuclear powers had agreed in principle. "I have no doubt that all non-nuclear powers will welcome a re-assurance of the type that India is trying to secure from the main nuclear powers" (The Hindu 1965:

[‡‡] Averall Harriman was American ambassador to the USSR (1943-1946) and to Britain (1946). He was then Secretary of Commerce (1946-1948) and special assistant (1950-1952) to President Truman. He became Governor of New York (1955-1959), Ambassador-at-Large (1961), (1965-1969), and US representative at the Vietnam peace talks in Paris (1968-1969). He also negotiated the Partial Nuclear Test-Ban Treaty (PTBT) between the USA and USSR in 1963.

6). One simple method, Swaran Singh declared, would be for the nuclear powers to agree never to use any nuclear device against a non-nuclear nation.

However, the Foreign Minster's optimism proved to be ill founded. On May 10, 1965, the Prime Minister informed the Lok Sabha that India had not received the reaction of non-nuclear countries of Asia and Africa. Nor, apparently, was there an encouraging response from either the United States or the U.S.S.R (Noorani 1967: 493). The only country that was actively pursuing the Indian proposal was the UK.

On March 24, 1965, Michael Stewart, the British Foreign Secretary, addressed the National Press Club in Washington and said that no progress had been made on providing non-nuclear countries guarantees against an atomic attack.

> "The present status of the British proposal is that it is no more than the first proposal at present. It is something which would need very detailed discussion between our two countries-Britain and the United States. The importance of it is that if you do not provide some kind of nuclear umbrella for certain non-nuclear powers you will get one country after another in the world providing itself with nuclear: weapons" (Noorani 1967: 494).

It however seems that by this time India was firmly committed to the view that the multi-lateral guarantee should be under the auspices of the United Nations. in a major policy statement to the 114-Member United Nations Disarmament Commission On May 4, 1965, the Indian delegate to the United Nations Disarmament Commission B.N. Chakravarti, proposed a five-point plan which included: (1) "an undertaking not to use nuclear weapons against countries who do not possess them," and (2) "an undertaking through the United Nations to safeguard the security of countries who may be threatened by powers having nuclear weapons capability or embarking on a nuclear weapons capability" (The Indian Express 1965: 1).

The second Chinese nuclear explosion coincided with Shastri's visit to the Soviet Union in May 1965. However, the joint communiqué issued on May 16 was silent on the issue of a security guarantee from the Soviet Union. On his return Shastri told the Congress Parliamentary Party's Executive in the course of his report that he had not discussed the

idea of a nuclear umbrella with the Soviet leaders (Rangaswami 1964: 1). There could have been two reasons for such a stand. One was that Shastri knew that the Soviets were supportive of the Chinese nuclear programme and had assisted them in their endeavours, and thus did not wish to push for a nuclear guarantee with them thus sparing both sides the embarrassment of a negative answer. The second reason could be that having got a response to his proposal in the negative, Shastri did not wish to end the quest by making public the Russian refusal.[§§] (Negin and Smirnov 1999: 3)

By this time, it was quite clear that the Indian search for a security guarantee had run in to roadblocks. The first indication of this came with the British Prime Minister made a statement in the House of Commons on 27 July 1965, saying that "I am sure that the Hon'ble Member realizes the very great difficulties of securing anything in the nature of a nuclear guarantee" (Noorani 1967: 494). The British Prime Minister added that the question would be taken up with the US and the Soviet Union and termed the work of the 18-Nation Disarmament Conference as very relevant in this connection.

In September 1965 when the Indo-Pak war broke out, China issued veiled threats to open a second front on the Himalayan border (Cha 2003: 465). This forced the Indians to contemplate seriously the inadequacy of their conventional deterrent and rethink the traditional emphasis on disarmament. According to one report India asked the United States, Russia and Britain for all possible action to deter Chinese from attacking her territory and also discussed with these countries the possibility of military assistance if China did cross her frontiers (Noorani 1967: 494-495).

The 1965 war and the nature of the Chinese stand threat during the Indo-Pak conflict gave further ammunition to the domestic "pro-bomb" lobby. A. G. Noorani quotes the Indian Ambassador to the United States, B. K. Nehru as saying:

[§§] For a fascinating account of Chinese-Soviet nuclear cooperation during the 1950s, see Negin and Smirnov (1999), "Did the USSR Share Atomic Secrets with China?" *Parallel History Project on NATO and the Warsaw Pact*, Zurich: Switzerland.

> "There is a great pressure on the Indian government to explode a nuclear bomb. This pressure has come after the Chinese nuclear explosion. The Indian government has so far resisted this pressure, but obviously India or any other self-denying non-nuclear power, if it does deny itself the position of an independent nuclear capability, must call upon the international community to defend itself against a nuclear attack" (Noorani 1967: 495).

Speaking at the ENDC, Ambassador Nehru noted that "the Western Powers had suggested a nuclear plan which had two aspects-non-proliferation and non-acquisition. But it lacked the third aspect, namely an undertaking to defend non-nuclear powers against a nuclear attack by a nuclear power. It is all very well to ask a person not to defend himself, but then somebody else has got to take on that defence and that can only be the international community" (Noorani 1967: 495).

Speaking to the Eighteen Nation Disarmament Committee (ENDC) on 1 February 1966 Soviet Premier Kosygin failed to include a guarantee to non-nuclear countries against an attack by another nuclear country. The farthest the Soviet leader was prepared to go was to include "a clause on the prohibition of the use of nuclear weapons against non-nuclear States parties to the treaty which have no nuclear weapons on their territory," in the draft treaty (Graham and Tomero 2000: 8-10).

China tested its third nuclear device which was a thermo-nuclear device on 9 May 1966. Speaking to the Lok Sabha, the Foreign Minister, Swaran Singh condemned the Chinese test and called it an "arrogant defiance of the clearly and passionately expressed desire of people all over the world to discontinue nuclear tests and to arrest the process of nuclear proliferation." The Foreign Minister went on to say that "the mere fact that China has carried out its third nuclear explosion does not vitiate the earlier conclusion, though at the same time, the policy is kept under constant review" (Jain 1974: 177-178). Clarifying this further, the Foreign Minister while speaking to the Rajya Sabha added that "India would go ahead with development of nuclear energy for 'non-peaceful purposes' unless there is progress in the direction of nuclear non-proliferation and a guarantee by the main nuclear powers to all non-nuclear powers' against nuclear blackmail" (The Hindu 1966b: 1).

Speaking to the Lok Sabha during the course of the debate on the Chinese thermo-nuclear test, the Prime Minister Indira Gandhi replying to a question by a member regarding the nuclear guarantee suggested to the British Prime Minister by the late Lal Bahadur Shastri said "in regard to such protection, unless the main nuclear powers like the US and the Soviet Union jointly reassure the non-nuclear powers against nuclear blackmail, any suggestion that might be made by one country like the UK will not meet the situation" (The Hindu 1966a: 1).

On 17 May 1966, the Foreign Minister again speaking on the Indian search for a guarantee made it amply clear that the Government was in no position to hold out any hope, at this stage, of success of any of its alternative plans for countering the Chinese threat. Referring specifically to the plans for a multilateral security guarantee that India had pursued from the US and the Soviet Union, the Foreign Minister said that "India wanted a multilateral guarantee, not a bilateral one. But, a multilateral guarantee was not available" (The Hindustan Times 1966: 9). On May 19, Prime Minister Mrs. Gandhi, made a statement at a press conference which seemed to suggest that the quest for a guarantee was at an end. Asked about the proposal, she replied that "there was an approach in this regard at the time of her predecessor, but nothing came out of it" (The Hindustan Times 1966: 1).

But strangely enough, India itself now, became a convert to the very limited guarantee offered by Kosygin. Speaking at the plenary session of the I8 Nation Disarmament Committee at Geneva on August 23, India's delegate supported the Ethiopian proposal for nuclear-free zones and, in this context, approvingly referred to the Kosygin formula. On October 27, India, with some other non-aligned countries, tabled a resolution on nuclear proliferation in the U.N. Political Committee which *inter alia* invited the nuclear powers to give a guarantee, not on the terms India had been asking, but on the lines of the Soviet offer. The General Assembly passed the resolution on November 17 requesting the Disarmament Committee "to consider urgently the proposal that the nuclear weapon Powers should be given an assurance that they will not use, or threaten to use, nuclear weapons against non-nuclear-weapon States without nuclear weapons on their territories,

and any other proposals that have been or may be made for the solution of this problem." (Noorani 1967: 496-497). It is not easy to understand why India did not press for a guarantee of the kind she had been demanding, and was again to ask for later, is not easy to understand.

On yet another aspect of the question, India's position changed somewhat. Until now New Delhi had stressed that India should not be singled out for protection and the guarantee should, not be singled out for protection and guarantee should cover all non-nuclear. M.C. Chagla, who succeeded Swaran Singh as Minister for External Affairs, however, began to urge that India's position was unique.

India opposed the proposal for a Conference of Non-Nuclear Weapons States to consider: "How can the security, of the non-nuclear States best be assured?" (Bunn and Timerbaev 1993: 15) But attempts were made to make common cause with States like West Germany and Japan whose situations were more akin to India's in regard to nuclear capability, though, unlike India, they were in treaty alliance with the U.S. That despite this protection Bonn should have asked for "cast-iron guarantees" against nuclear attack and nuclear blackmail is a measure of the justice of the demand. Japan's conditions for signing a non-proliferation treaty, as outlined by Foreign Minister Takeo Moo on March 14, 1967, were strikingly similar to India's (The Hindu 1967: 1).

In response to these various statements, the U.S. made public her position on the guarantee. William Foster, head of the American delegation at Geneva, said that "President Johnson's unilateral declaration made on 16 October 1964 should be adequate to meet India's needs. He went on to say that "An expansion of the President's statement could be undertaken within the framework of the UN (Noorani 1967: 497).

Soon thereafter, in an interview that he gave to the New Delhi correspondent of the Washington Post, Warren Unna, Foreign Minster M. C. Chagla discarded the proposed guarantee through the U.N., stating that India was out to obtain a joint guarantee from both the US and the Soviet Union. Expanding on what he meant by a "guarantee" the

Minister said that guarantee means "a commitment which would stand up ahead of time to deter India's one real threat, Communist China from making an attack and a commitment for immediate Soviet-American reprisal in case China decided not to be deterred." Yet he did voice doubts whether the US or the Soviet Union would "risk being bombed" in order to protect India (The Hindustan Times 1967: 6).

In the interview with Warren Unna, the Minister also went on to explain why India had decided not to pursue the search for a security guarantee through the United Nations. He said that the Security Council's permanent members included Nationalist China and thus it could always block any American or Soviet proposal by using its veto. He said "before the Security Council even called a meeting we might be destroyed" (The Hindustan Times 1967: 6).

During April 1967, L. K. Jha the Prime Minister's personal envoy's had talks with Moscow and Washington, the point that came out was that both the superpowers appreciated India's problem. It was reported that they probably would be inclined to take it even more seriously if India linked the problem directly with its signature on the non-proliferation treaty. The U.S. was however wary about giving a unilateral guarantee formally ratified by the Senate. President Johnson in his meeting with L.K. Jha on 19 April 1967 said that his administration was genuinely interested in this problem and would go through the Soviet draft at the earliest and get back to the Indian government (Battle undated [b]: 14).

Foreign Minister Chagla made it plain that in its present form the non-proliferation treaty was totally unacceptable to India which was quite prepared, if need be, to stand alone on the matter (K. S. Shelvankar 1967: 7). There were indications that both Japan and West Germany might drop their objections and sign the proposed treaty. In a statement to the Indian Parliament that signalled the end of the Indian search for a nuclear guarantee, Mrs. Gandhi pointed to the difference in the Indian position. She said "We for our part may find ourselves having to take a nuclear decision any moment, and it is therefore not possible for us to tie our hands. It is not only our security but the future of our industry

which is at stake" (Selected Speeches of Indira Gandhi, January 1966-August 1969 1982: 370-372).

The quest for a guarantee, thus, had come a long way since December 1964. Shastri had first broached the issue of the security guarantee in London, following which India sought a joint, multilateral guarantee from Moscow and Washington. The issue of a guarantee was then expanded to include all non-nuclear powers and was taken up at the UN where it was attenuated to fit with the Kosygin formula. It was then taken out of the UN, as India realised that the veto would hamper any dialogue on securing a guarantee at the UNSC, and again explored in US and USSR. Since no positive assurance was forthcoming from the US and the USSR Mrs Gandhi questioned the viability of the guarantee while focussing on self-reliance thus ending India's quest for a security guarantee.

CHAPTER IV

THE NPT NEGOTIATIONS AND THE 1971 WAR

This chapter will deal with the Nuclear Non-Proliferation Treaty (NPT) negotiations as well as the 1971 Indo-Pak war and the American support for Yahya Khan's administration during the crisis. The importance of focusing on these two specific events is that it can be posited that it was the outcome of the NPT negotiations, exacerbated by the American role under the Nixon administration in the 1971 war which made India take the decision to conduct a Peaceful Nuclear Explosion in May 1974.

India under Jawaharlal Nehru was one of the earliest proponents of a comprehensive worldwide test ban treaty (Graham and Tomero, Acronym Report 1997: 49). However, as the NPT negotiations progressed India saw that the treaty that was being finalized would be inherently discriminatory as it would divide the countries into "nuclear haves" and "nuclear have nots." Such a treaty was unacceptable to India as joining it would severely limit its nuclear programme.

Within a year of NPT entering into force India was drawn into third war with its Western neighbour over the East Pakistan issue. Though superior conventional might and the Soviet military as well as diplomatic support India received, ensured that India comfortably won the 1971 war within a span of a less than two weeks. However, the pro-Pakistani tilt of the Nixon administration that came out in the various Security Council resolutions that it proposed as well as the deployment of the Seventh Fleet led by the aircraft carrier *USS Enterprise* in the Bay of Bengal made India realize that it had to become self-reliant in order to be secure.

Thus, both, the NPT negotiations as well as the nature of the US involvement in the 1971 war made India realize that its *moralpolitik* was falling flat and that it needed to secure its national interests on its own and take charge of the situation. This chapter will thus see how these two incidents affected the Indian decision to conduct the PNE in May 1974.

The NPT Negotiations

Since the mid '60s a subtle but significant change has been observed in India's attitude toward international efforts, at arms control and disarmament. India's arms control policy has become less globally oriented and more concerned with the prerogatives of national sovereignty. India has modified the heavy emphasis it formerly placed upon the value of international cooperation toward arms control and has become more overtly nationalistic in its approach to matters of disarmament. India's refusal to sign the nuclear Non-Proliferation Treaty (NPT) of 1968 was the first explicit evidence of this evolution.

The Indian change in attitude can be attributed to four main events – 1962 border clash with China, the death of Prime Minister Nehru, China's testing of its first nuclear explosive device, and the 1965 military conflict with Pakistan. These four events undermined the assumptions which had guided the Indian foreign policy since its independence in 1947. However, the resulting shift in arms control policy was not apparent until international negotiations on the non-proliferation of nuclear weapons in the years 1965-1968.

Before 1965, India's arms control policy was characterised by: first, a *sense of urgency* regarding the need to reduce international political tensions in a world containing a growing stockpile of nuclear weapons; second, active involvement in international efforts toward arms control, a commitment which included a special leadership role for India as a mediator between the Cold War power blocs, as well as a recognition of special spheres of influence for initiatives by the two nuclear Super Powers; and third, faith in *the efficacy of moral force* in achieving solutions to what were essentially political-not military, scientific, technical, or administrative--problems. In short, India's arms control policy in the years before 1965 reflected its overall foreign policy assumptions which perceived India's .best chances for national security and economic development as tied to the wider goals of world peace and international cooperation (Sullivan III 1973: 691-692).

Indian arms control policy since 1965, and more clearly since 1968, has reflected, a reduced sense of urgency regarding the need for international agreements in disarmament matters and a withdrawal from an active role as a mediator in international arms control negotiations, including a suspicion of Great Power collaboration in these matters and a heightened sensitivity to considerations of equity and balance in disarmament talks. Thirdly, retention of certain traditional policy objectives like national security and economic development has been noticed. However, India has developed a better understanding of the difficulty of achieving such goals through appeals to moral force and political will (Sullivan III 1973: 692).

Since the period of negotiation of the Nuclear Non-Proliferation Treaty (NPT), India's sense of urgency regarding the desirability of an international arms control agreement has waned. India's new attitude toward arms control agreements is reflected, in specific substantive positions on the most significant matters discussed at the Geneva Conference on Disarmament since 1968. In addition, the restraint adopted by India has exhibited in the adoption of certain generalized attitudes towards the very concept of agreements for curbing the arms race. These include a de-emphasis on the importance of collateral measures of disarmament, and a demand for a total approach to arms control negotiations, and the insistence on inserting into limited agreements the reservation that they are but first steps toward further necessary decisions (Sullivan III 1973: 692-693).

India regarded discussion of collateral issues as "recurring exchanges of credentials of good will and reaffirmations of intent." It supported limited agreements in circumscribed areas not because such items came "-first in -the order of importance, but first in the order of convenience" (Jain 1974: 199). In this spirit, India applauded bilateral talks on the direct communications link established between the U.S. and the U.S.S.R. in 1963, as well as the "unilateral" decisions of the Big Two in 1964 to reduce the production of fissionable material for weapons use and to cut back their respective military budgets that year. India strongly supported those collateral measures affecting areas where nuclear weapons had not yet penetrated. It was less approving of those limited agreements of the mid-1960s on nuclear weapons testing -and proliferation.

India never regarded the non-proliferation treaty as appropriate collateral measure because it applied only to states which did not possess nuclear weapons and did not, affect production of nuclear weapons by states which already had them. The Indian Ambassador speaking to the ENDC said "Such so-called collateral measures, in India's estimation, were in fact harmful because they "created the illusion that progress was being made. . . (while) in no way controlling or curtailing the ever spiralling nuclear arms race among the present Nuclear Powers" (Jain 1974: 210).

In the Non-Proliferation Treaty of 1968, as part of its battle to curb "vertical" as well as "horizontal" proliferation India was most instrumental in the inclusion of Article VI requiring the nuclear-weapon powers "to pursue negotiations in good faith on effective measures relating to the cessation .of the nuclear arms race at an early date" (ACDA 1982: 81-98; E. L. M. Burns 1969: 801). As the NPT negotiations progressed it became very clear that the end result that India one hand and the US and the Soviet Union on the other were seeking were very different. The US and the Soviet Union were attempting to design a treaty to stop the spread of nuclear weapons to other countries, while India was seeking a treaty that would, freeze and ultimately rollback the production of nuclear weapons that had already occurred (Seaborg and Loeb 1987: 198).

The three-year experience of the drafting of the NPT heightened India's sensitivities to the inevitable lack of equality inherent in any agreement on arms control between states which possessed nuclear weapons and those which did not. It was during the years 1965 - 1968 that India first became suspicious of the two Super Powers and began to issue charges of "atomic collusion" at the expense of the less technologically advanced states. International controls upon non-nuclear-weapon states in the NPT were denounced as "a new form of economic colonialism" and the treaty itself was regarded as "discriminatory . . . giving a privileged license to the existing nuclear powers." India wanted to "obviate all invidious distinctions of prestige" and to "do away with the special status of superiority associated with . . . nuclear weapons" (Jain 1974: 173).

In a statement made to the First Committee of the United Nations, the Indian Representative, V.C. Trivedi opposed any moves that would prohibit non-nuclear weapon states from conducting peaceful nuclear explosions. He said that with regard to the problem of disarmament and arms control in general and a treaty of non-proliferation in particular, it was necessary to view the question of control in an objective and non-discriminatory framework. He went on to say that if any control is to be exercised, it should be exercised universally and cover all aspects of proliferation. More specifically, it should be exercised not only on the peaceful utilisation of nuclear energy, but also on the war-like utilisation of nuclear energy (Jain 1974: 186). He went on to say that:

> "References have also been made to peaceful nuclear explosions and it has been suggested that these should be denied to the developing nations and that if the latter need them for digging canals or for their harbour projects, they should get such explosions done for them, on payment, by the nuclear weapon powers ... the Indian delegation feels that the proposition is somewhat strange. There is full justification for preventing proliferation in weapons, but this is the first time it is suggested that there should be non-proliferation in science and technology ... Knowledge and Learning, science and technology are meant to be disseminated and must be disseminated" (Jain 1974: 186-187).

The speech went on to point out that it was doubly important for the developing nations to absorb modern technological developments. This was so because they cannot afford to remain mere producers of raw material which could be exported to industrialized nations which would process it and sell the finished article to the raw material producers.

In February 1967, President Johnson sought to augment negotiations with a message to the ENDC. The president downplayed the question of nuclear disarmament and emphasised the pressing need to stop the spread of nuclear weapons. Then referring to the issue of peaceful nuclear explosions the president went on to say that:

> "The non-proliferation treaty should cover both nuclear explosive devices for peaceful as well as military purposes. The technology is the same. A peaceful nuclear explosive device would, in effect, also be a highly sophisticated weapon. However, this will not impose any technological penalty on the participating nations. The United States is prepared to make available nuclear explosive services for peaceful purposes on a non-discriminatory basis under appropriate international safeguards" (ENDC 2005: 10-11).

India reacted quite strongly to the American suggestion. On 27 March 1967 the Lok Sabha convened a debate on nuclear policy. During the debate the Indian Foreign Minister M. C. Chagla said that India would carefully consider the NPT draft. However, he went on to say that any decision would be taken keeping in mind India's national security considerations. He emphasised the fact that "India was a non-aligned country and was not under anyone's political or any other umbrella." Due to this he said that "there is no military pact under which we can be protected, if we are attacked by any nuclear power." Reminding the house that "India has got a great nuclear capability," the Foreign Minister said that "there should be nothing in the treaty which would impede our use of nuclear energy for peaceful purposes" (Jain 1974: 190-191).

The NPT negotiations proved to be very difficult for the Indian political leadership. This was mainly due to the fact that this was the period when the Eighteen-Nation Committee on Disarmament considered two separate but identical draft texts of a non-proliferation treaty, submitted by the USSR and the United States, as well as a number of amendments submitted by other members. During this period India could not use non-alignment to play the two superpowers against each other while continuing to maintain Indian autonomy due to the fact that now the US and the Soviet Union presented a common front against India on the NPT treaty.* This presented the Indian leadership with a Catch-22 situation. India still required large amounts of economic aid from the United States and military supplies from the Soviet Union. With regard to the Indian nuclear power programme American and Canadian assistance was still very essential. However, to join the treaty in spite of the objections India had stated would result in a situation that would severely limit India's nuclear programme.

As a follow up to the Foreign Minister M. C. Chagla's speech in the Parliament, the Indian representative V. K. Trivedi made a statement in the ENDC on 23 May 1967. Mr.

* The US and the USSR presented a joint draft treaty (which was the outcome of the lengthy negotiations at the ENDC) in May 1968 to the First Committee of the United Nations General Assembly. After a lengthy debate at the UNGA and acceptance of several amendments to meet the wishes of the non-nuclear states the treaty reached its final form on 21 May 1968 and was "commended" in the General Assembly Resolution 2373 (XXII) of 12 June 1968. There were 4 against and 21 abstainers. India, Brazil, Burma and France were among the abstainers. Albania, Cuba, Tanzania, and Zambia voted against the resolution.

Trivedi said "The civil nuclear powers can tolerate a nuclear weapons apartheid, but not an atomic apartheid in their economic and peaceful development" (Jain 1974: 190-191). The above statement was to become a fundamental one in Indian nuclear diplomacy for decades to come. The import of Trivedi's statement was that nuclear weapons were the manifestation and symbol of the world's dominant white nations; the non-proliferation treaty represented an effort to keep this power from the developing mostly dark skinned world (Perkovich 2000: 138).

On 24 August 1967, the US and the Soviet Union submitted a joint draft non-proliferation treaty to the ENDC. The superpower agreement foreshadowed that a final treaty would emerge soon. However, the joint draft proffered no security guarantees or commitment to pursue nuclear disarmament (ENDC 2005: 11). On 28 September 1968 in a statement to the ENDC, V.C. Trivedi deemed the draft as inadequate. However subsequent changes led to incorporation of the language that was present in the preamble into the treaty's text as Article VI that called for negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament" (ACDA 1982: 81-98).

However, despite these changes and the parallel security assurances that were offered by the US, the Soviet Union and the UK in form of a Security Council resolution, India's objections to the treaty were not addressed. On 6 October 1967, Defence Minister Swaran Singh announced to the UN General Assembly that "India would not sign such a treaty for reasons now well known." He said that "the Government of India continues to in favour of the non-proliferation of nuclear weapons, it is equally strongly in favour of proliferation of nuclear technology for peaceful purposes, as an essential means by which the developing countries can benefit from the best advances of science and technology in this field" (Mirchandani 1968: 149).

The treaty's redrafts of January and March 1968 did not significantly address Indian concerns so as to warrant a change in the Indian stand. On 24 April 1968 Indira Gandhi made a statement in Lok Sabha where she forcefully articulated the case against India

joining the NPT (Selected Speeches of Indira Gandhi, January 1966-August 1969 1961: 372-374). Thus, when the Nuclear Non-Proliferation Treaty was put to vote on 12 June 1968 India abstained.

Since the signing of the Nuclear Non-Proliferation Treaty in July 1968, India's active involvement in international arms control negotiations has been greatly reduced. In the Conference of the U.N. Committee on Disarmament at Geneva, India averaged only two or three major speeches in each of the 1969, 1970, and 1971 sessions. That final year, when the respected M. A. Husain was replaced as head of the Indian delegation by N. Krishnan, only two rather perfunctory Indian statements were delivered.[†]

The 1971 Indo-Pak War

In this section of the dissertation apart from describing in brief the roots of the 1971 war between India and Pakistan an attempt will also be made to study the Nixon administration's tilt towards the General Agha Muhammad Yahya Khan's (Yahya) regime. The American support for a regime that was unleashing repressive actions on its citizens in East Pakistan under the direction of Yahya and his Martial Law Administrator Lt. Gen Tikka Khan was quite inexplicable. Three broad reasons can be outlined to understand the American involvement in the war in a better manner. First and most important was the fact that Pakistan was a crucial interlocutor for the Nixon administration in its bid to normalize relations with Communist China (Gandhi 2005a: 6). The second reason could have been the American concerns about ensuring that no third party getting involved in the crisis and thirdly, the personal rapport that President Nixon and Gen. Yahya Khan shared (Smith and Keefer 2005c: 141-145).

The third war between India and Pakistan was declared on the 3rd of December 1971. The entire war lasted for only two weeks and resulted in the dismemberment of Pakistan

[†] The low level of activity should be compared to the 37 major speeches by India during the years 1965.1968 when it was intensely involved in the NPT deliberations, and the 74 statements made during the 1962-1964 period when India was most prominent in exercising a position of influence among the group of eight non-aligned nations at Geneva.

with East Pakistan becoming a separate nation now known as Bangladesh. The Indian military campaign was one of the swiftest in recent military history with the cease fire agreement being signed on 16 December 1971 (Prasad 1992: 2).

The roots of discord lay in the very creation of Pakistan as a nation in August 1947. At the time of independence, Pakistan was made up of two distinct and geographically unconnected parts termed as West and East Pakistan. West Pakistan was made up of a number of races including the Punjabis who were in majority, Sindhis, Pathans, Balochis, Mohajirs (Muslim refugees from India) and others. East Pakistan, on the other hand, was much more homogeneous and had an overwhelming Bengali-speaking population (Chapman 2003: 205).

Although the Eastern wing of Pakistan was more populous than the Western one, political power since independence rested with the Western elite. This caused considerable resentment in East Pakistan. The resentment towards the existing situation that was exacerbated by the Pakistani attempts at assimilation by making Urdu the national language led to widespread protests[‡] (Chapman 2003: 206). During 1968 Sheik Mujibur Rehman's party, the Awami League became openly critical of the government's policies and demanded regional autonomy. Mujibur brought out his "Six-Point Programme" which was an open demand for secession in all but name (Chapman 2003: 206). The Six-Point underlined a demand for a completely independent economy and currency, with co-operation between the wings based on their self-interest and not on central government dictates, and even although defence was still to be a central matter, the separate wings would have been able to raise independently their own militia for defence purposes. This placed the central government's role in defence to more on the lines of a defence pact. The demand that created most of the problems was the demand that representation in the central government would be on the basis of population – which would ensure the East's

[‡] By 1952 the West Pakistani administration had managed to exclude Bengali as a language from the daily tokens of national identity – the coins, currency notes, postage stamps. In 1952 following an announcement by Prime Minister Khwaja Nazimuddin that Urdu would be the only national language. The riots that followed this announcement led to several students being shot dead by the police.

domination. The West Pakistan's response was to imprison Mujibur on a trumped-up charge making him a Bengali national hero overnight (Chapman 2003: 206).

After President Ayub Khan stepped down from power in 1969, Gen Yahya Khan took over as President of Pakistan and the Chief Martial law administrator. However, Yahya Khan needed to win back the peoples' confidence that had fallen to an all time low during Ayub's regime. Thus, he announced among other measures the promise to hold nation-wide elections and to accord the Eastern wing representation in the legislature in proportion to its population (Prasad 1992: 49-50). However, the decision boomeranged when the Pakistani general elections were held in held in 1970, the Sheikh's party won the majority of seats, securing a complete majority in East Pakistan. Sheikh Mujibur Rehman's party Awami League won 167 out of 169 seats in East Pakistan. This presented Yahya with a dilemma. He could not go back on his promise of transferring power to the elected representatives but in the situation that existed where this would mean transfer of political control to Mujibur's Awami League, he could not ask the ruling West Pakistani elite to transfer power to East Pakistan (Chapman 2003: 207; Prasad 1992: 50-51).

By the end of December 1970 it was very clear that Yahya and Bhutto were not going to allow Mujibur Rehman to form the government despite the overwhelming majority that he had garnered in the East. Bhutto's non-cooperative attitude prevented Yahya from setting in motion even the procedure for convening the National Assembly (Dixit 2002: 171). However, other national as well as regional parties in West Pakistan except the Muslim League and Bhutto's Pakistan Peoples' Party (PPP) did not support the policies being followed by Bhutto and Yahya. They demanded that the election results be respected and power be handed over to the Awami League. Even a regional party like the Punjab Pakistan Front on 3 March 1971 passed a resolution that opposed Bhutto's stand on the formation of the new government. The resolution went on to say that "a decision is being forced on the country by the reckless and unsupportable ambitions of one single person who claims to speak in the name of Pakistan although he has a clear majority in barely one of the four provinces of West Pakistan" (Dixit 2002: 174).

East Pakistan came to a standstill with protests against the postponing of the convening of the National Assembly and the delay in installing Mujibur Rehman as the Prime Minister. Between 3 and 6 March 1971 there were violent incidents that resulted in about 50 deaths and 600 people being injured when the army and the police resorted to firing. On 7 March 1971, Mujibur Rehman made a four point demand where he asked for the immediate annulment of the martial law, for troops to be sent back to their barracks, for an inquiry into the killings that had occurred between mid-February and 6 March and for the transfer of power to the elected representatives of the people (Prasad 1992: 55).

As a way out of this situation, Gen. Yahya posited that Mujib and Z. A. Bhutto should negotiate the terms of a new constitution and also settle their differences. The March 1971 talks involving Yahya, Mujib and Bhutto were doomed to fail from the start. Bhutto joined the talks with his own motives in mind. The first was to score a publicity point which was that he had agreed to talk to Mujibur Rehman despite the fundamental differences he had with the East Bengali leader. His second motive, as J. N. Dixit note in their book *India Pakistan in War and Peace*, "was to ensure that Yahya did not succumb to Mujibur Rehman's advocacies, which would have thwarted Bhutto's ambitions" (Dixit 2002: 174).

The March 1971 talks were destined to fail given Bhutto's obduracy and Mujib's proven political strength. Both the parties were reluctant in searching for a common ground. The talks failed after Mujib refused to change his Six-Point Programme. After the failure of the talks, the Awami League led by Mujibur Rehman called for a non-violent non-cooperation and a general strike. With Mujibur declaring that the province was under his control the Awami League started collecting taxes instead of the government. It was after this that the West Pakistani elite moved to hold on to political power. This bid to regain power led to a massacre of thousands of Bengalis, jailing or killing of intellectuals and political leaders, attempts at disarming the East Pakistani members of the armed forces, and led to a refugee crisis which at its peak saw more than 10 million refugees seeking shelter in India (Dixit 2002: 175).

With the public unrest growing ever stronger, Yahya Khan ordered the imposition of martial law and a military operation against the Awami League and particularly against its youth wing from the afternoon of 25 March 1971. Apart from this pre-emptive military measures were ordered against the East Bengal Regiment of the Pakistani Army and the East Pakistan Rifles. The military crackdown commenced a little before midnight on 25-26 March 1971.

Tikka Khan who had been put in charge before Yahya flew out of Dhaka on 25 March had about 70,000 soldiers under his command. The West Pakistani forces now outnumbered the East Pakistan Regiment, the East Pakistan Rifles and the East Pakistan Police. On 26 March 1971 Mujibur Rehman and was flown to East Pakistan. Tikka Khan then launched genocide operations with brutal precision. His troops attacked and killed all the personnel at the regimental headquarters of the East Pakistan Rifles in Dacca. West Pakistani troops also attacked the headquarters of the Dacca Police at Rajbagh. The resistance put up by the Bengali personnel in these military and paramilitary forces was not successful as they were facing an overwhelming force that included armour and artillery. The Pakistani troops also attacked the campus of Dacca University and Bengali troops in all major metropolitan centres (Dixit 2002: 177).

India was closely monitoring the situation that was unfolding in East Pakistan. Prime Minister Indira Gandhi made several statements in the Indian Parliament between March and May 1971 that expressed growing concern about the developments in East Pakistan and pledged India's support for the restoration of democracy (Indira Gandhi 1967: 345-347).

Pakistan's strategy was to engineer another military conflict with India and use it as an excuse to justify the massive military operations against the people of East Pakistan. The first set piece of this strategy had been to hijack an Indian Airlines plane in early March 1971. Pakistan hoped that the incident would launch some sort of limited intelligence and military action and it could use this as an excuse to justify the massive military operations

against the people of East Pakistan. India however did not walk into this trap. It suspended over flights of all Pakistani aircraft over Indian airspace by mid-March and then moved the International Civil Aviation Organisation (ICAO). The Indian case was strengthened by the Pakistani military regime's failure to take corrective action against the hijackers, and Bhutto himself meeting them.

The situation in East Pakistan led to the exodus of more than 8 million refugees (more than half of them Hindus) to neighbouring India. West Bengal was the worst affected by the refugee problem and the Indian government was left holding the enormous economic burden. Repeated appeals by the Indian government failed to elicit any response from the international community and by May 1971, the then Indian Prime Minister, Mrs. Indira Gandhi, decided that the only solution lay in helping Bengali freedom fighters, especially the Mukti Bahini, to liberate East Pakistan (Dixit 2002: 180) the Mujibnagar government that was operating from the Indian border was provided with headquarters at 18 Carmac Street in Calcutta. The Ministry of External Affairs opened a full-fledged secretariat in Calcutta to liaise with the Mujibnagar government under Nazrul Islam and Tajuddin Ahmed.

The Nixon Administration's stance during this period when the East Pakistan administration under the leadership of the Martial Law Administrator, Lt. Gen. Tikka Khan reportedly massacred around three million Bengalis and created a situation where almost ten million people to seek refuge in India is inexplicable. The killings were indiscriminate and targeted anyone from members of the Awami League to students. Large numbers of Bengalis both Muslims and Hindus, businessmen and academics were killed during this period of martial law. In a memorandum prepared by Kissinger for President Nixon Kissinger where he presents Nixon with U.S. policy options directed towards the crisis in East Pakistan. After discussing the memorandum, both Nixon and Kissinger feel the third option of "launching an effort to help Yahya achieve a negotiated settlement" is the best as it, as Kissinger writes, "would have the advantage of making the most of the relationship with Yahya, while engaging in a serious effort to move the situation toward conditions less damaging to the US and Pakistani interests." At the end

of the last page Nixon writes, "To all hands: Don't squeeze Yahya at this time" (Smith and Keefer 2005b: 123-127).

What makes the decision all the more intriguing is the fact that, the US Department of State officials as well as several other members of the US government who were posted in East Pakistan during this period were urging the Nixon administration to take steps to curb the "genocide" that was occurring. In a meeting with President Nixon, American Ambassador Keating posted in New Delhi terms the happenings in East Pakistan as "genocide" (Smith and Keefer 2005a: 210) Earlier in a telegram to the State Department, Keating had recommended that the US to "promptly, publicly, and prominently deplore" the brutality (Gandhi 2005b: 5).Washington however, never publicly spoke out against West Pakistan. In an earlier telegram dated 6 April 1971 to the State Department the Consul General in Dacca, Archer Blood writes that "we have chosen not to intervene, even morally, on the grounds that the Awami conflict, in which unfortunately the overworked term genocide is applicable" (Smith and Keefer 2005d: 74-76).

Pakistan felt it could dissuade India from helping the Mukti Bahini by being provocative. The Pakistan Air Force (PAF) in East Pakistan took to attacking suspected Mukti Bahini camps located inside the Indian state of West Bengal. In the Western and Northern sectors too occasional clashes, some of them quite bloody, took place. Pakistan was suggesting that should India continue with its plans it should expect total war as in 1965. Only this time, the Pakistanis would concentrate their forces in the West and thereby aim at capturing as much as Indian territory as possible. Hence the Indians would be fighting a war on two fronts (while at the same time keeping an eye on the Chinese borders). Given this scenario, the Pakistanis felt that India at best would be able to capture some territory in East Pakistan and lose quite a bit in the West. In the end, the Pakistanis knew that the Western powers would intervene to stop the war and what would matter is who had the most of the other's territory.

As India geared up for its third war with Pakistan the Indo-Soviet Treaty of Peace, Friendship and Cooperation was signed in August 1971. The Indo-Soviet Treaty proved

to be the most significant piece of political and diplomatic leverage that India possessed during the 1971 war against both against the possibility of China coming to the assistance of Pakistan and an increased American role in the war. The Treaty was also important because the Indian forces were short of missiles, ammunition, artillery shells and various categories of essential equipment. The treaty ensured that these would be procured on an urgent and uninterrupted basis from the Soviet Union. The Soviet airlifting of military equipment to India commenced in October 1971 (Dixit 2002: 219; Chari 1979: 237-238).

During the same time around August 1971, the Americans were pushing for supply of weapons and other equipment to Pakistan. Interestingly, the Americans were prevented from giving any military assistance to Pakistan because of Congress. However, in a meeting with the Chinese ambassador in Paris on 16 August 1971 Kissinger explains that "the U.S. is prevented from giving any military assistance to Pakistan because of Congress," he however supports Chinese assistance by stating that the U.S. would "understand it if other friends of Pakistan will give them the equipment they need." He also declares that the U.S. "will do nothing to embarrass the government of Pakistan by any public statements" (Gandhi 2005a: 5).

Following the Battle of Boyra, the government of India decided to make all procedural and legal arrangements for India's direct military support to the liberation struggle. The agreement on a joint command between the Indian government and the Mujibnagar government was negotiated and signed between 1 and 3 December 1971.

The 1971 War between India and Pakistan began on 3 December 1971 with Pakistani Air Force launching massive coordinated air strikes on several Indian Air Force bases in Jammu, Punjab, and in Rajasthan. In an emergency meeting of the Indian cabinet on the night of 3 December it was decided to declare a state of war with Pakistan, to recognize Bangladesh and to allow the opening of a Bangladesh diplomatic mission in New Delhi immediately. Speaking to the Indian Parliament on 5 December 1971 Mrs. Gandhi announced the formal recognition of Bangladesh (Selected Speeches of Indira Gandhi, August 1969-August 1972 1975: 356-357).

By 10 December seven days into the war raging both in East and West Pakistan, the US began to show concern about the threat to the territorial integrity of West Pakistan as a result of the Indian onslaught. The Indian ambassador to the US, L. K. Jha was called to the State Department and was asked for assurances that India would not liberate Pakistan-occupied Kashmir (POK) and would not attempt any territorial annexation of West Pakistan. Jha assured the Americans that India had no territorial ambitions in West Pakistan, but as far as POK was concerned, India would take a decision dependent on the military situation.

It was this anxiety about the disintegration of West Pakistan, coupled with the hope that that a telling strategic signal from the US might prevent the separation of East Pakistan, that led to the US to order the Seventh Fleet, led by the aircraft carrier *USS Enterprise*, into the Bay of Bengal. On 13 December 1971, the Seventh Fleet crossed the straits of Malacca and crossed into the Bay of Bengal. The ostensible justification offered for the arrival of the Seventh Fleet armed with lethal weapons, tactical nuclear warheads and strike aircraft, was that it was moving towards Chittagong port to safeguard the foreigners in East Pakistan, and to evacuate them (Smith and Keefer 2005e: 845-846).

Concerned at this development, apprehensions were expressed at cabinet meetings held on 13 and 14 December that India must slow down the military campaign and establish diplomatic contacts at the highest level with the US and other Western powers (Dixit 2002: 221; Mishra: 1987: 358). However, both the Ministry of External Affairs as well as the military leadership advised Mrs. Gandhi against backing down in face to the US pressure.

It was in context of the Seventh Fleet that two Soviet deputy foreign ministers, Firyubin and Kuznetsov arrived in New Delhi. During discussions with them, Mrs. Gandhi and D. P. Dhar conveyed India's determination not to be cowed down under US pressure. They also indicated that India expected the Soviet Union to stand by them in this moment of crisis. The Soviet ministers conveyed to the Indian government that the Soviet Union

would convey an appropriate message to the US to ensure the withdrawal of the Seventh Fleet. They said that the soviets wished that after the operation in East Pakistan were successfully completed, India should declare a cease fire, stopping military operations in the Western sector (Dixit 2002: 221).

Late on 13 December or on the morning of 14 December the Soviet Union sent a cautionary message to the US that the Soviet fleet in the Western Pacific had been alerted about the presence of the *Enterprise* in the Bay of Bengal and that it world be sent to stabilize the situation in East Pakistan. Subsequently the Seventh Fleet started to withdraw from the Bay of Bengal by 15 December 1971 (Dixit 2002: 221-222).

The 1971 Indo-Pak war ended on 16 December 1971 at 4.30 p.m. with Lt. Gen Niazi signing the Instruments of Surrender while Lt. Gen Aurora signed the documents accepting the surrender. Simultaneous with the surrender India announced that it would implement the unilateral ceasefire on the western sector from 8 p.m. the same day (Dixit 2002: 222).

The hostile attitude taken toward India by the U.S. during the crisis had along lasting effect on Indian attitudes. What was most touted by the "pro-bomb" lobby was the fact that the US had gone ahead and dispatched an aircraft carrier group to the Indian Ocean and had attempted to coerce India.

As Bhabhani Sen Gupta ably described the shift in India's views toward the nuclear option in the wake of the 1971 war:

> "The Chinese bomb ceased to be the main argument for the Indian bomb, perhaps because of the Chinese inability to help Pakistan in the 1971 war and also because of the initiatives taken by India to normalize relations with China. The arguments for the bomb now were that without it India could not expect to be admitted to the corridors of global power, nor enjoy the status of the dominant regional power; that the bomb might quicken the process of normalizing relations with China; that it would proclaim India's independence of the Soviet Union and compel the United States to change its attitude of hostility or benign neglect" (Gupta 1983: 4).

Thus, the course of the NPT negotiations and the 1971 war that saw the deployment of the USS Enterprise in the Bay of Bengal, aiming to intimidate the Indian government India was thus, forced to re-examine the underlying assumptions of India's foreign policy as well as take a hard second look at its option of detonating a "peaceful" nuclear device that it had been postponing for several years. It could be hypothesized that it was a combination of these two factors that gave the "final push" that took India down the road of exploding its first Peaceful Nuclear Explosion in May 1974.

CHAPTER V

CONCLUSION

This dissertation is an attempt to study the reasons and processes behind the Indian delay in testing its nuclear device after the Chinese nuclear test in October 1964. The security challenges that India was facing in the aftermath of the defeat at the Chinese hands in the 1962 Sino-Indian border clash were exacerbated following the Chinese nuclear test. In the aftermath of the Indian defeat, India was already forced to re-examine the underpinnings of India's foreign and defence policy. What the Chinese test did was to make the necessity of such a re-assessment much more acute. India was thus forced to re-examine its policy towards China, its domestic defence policy as well as its policy of opposing development of nuclear weapons and supporting the quest for universal disarmament.

Though there is no dearth of literature on the Indian nuclear programme, there exists a gap in the existing literature as they do not pay adequate attention to the study of the ambiguous nature of the Indian nuclear decision making. This dissertation makes an attempt to bridge this gap by focussing on the politico-socio-economic factors as well as the Indian attitude towards arms control and disarmament to understand the pulls and pressures which operated on the Indian nuclear decision making thus resulting in an ambiguous policy. It also seeks to study is the scientific and political actors who were involved in the Indian nuclear decision making and their contributions in the development of an ambiguous policy.

Neo-realism does not provide a satisfactory explanation for the delay in India testing its nuclear device after the Chinese test in October 1964, and thus in this dissertation it was important to use Graham Allison's Rational Actor Model as well as the Governmental Politics Model. Both these models in conjunction provide a much more comprehensive explanation of the Indian delay as they take in to account the interplay of the various actors involved in the Indian decision making process. The Governmental Politics Model

also helps in taking into account the politico-economic situation that was prevailing during the period under study. It also allows for taking into account the nature of the Indian scientific leadership as they too had a very important role to play.

The neo-realist theory which posits that Indian security concerns required it to build a deterrent to the Chinese nuclear bomb is lacking on several fronts. Most importantly, neo-realism is not able to sufficiently explain the delay in Indian testing after the Chinese test in October 1964. What makes the situation much more interesting is the fact that India was quite advanced in civilian nuclear technology and it would have been very easy for India to divert this technology to build nuclear weapons. Till the 1965 war, India was adhering to the Nehruvian policy of opposing the development of nuclear weapons and supporting universal nuclear disarmament. However, in the light of the nature of Chinese threat during the 1965 war, Shastri gave Homi Bhabha the go ahead for the SNEPP. This signalled the first shift in the Indian nuclear policy. However, this half turn too was effected in an ambiguous fashion, in the name of a Peaceful Nuclear Explosion. This ambiguous nuclear policy was to continue well into Indira Gandhi's term as the Prime Minister at least till it was fairly clear that the outcome of the NPT negotiations would be inimical to India's security concerns. Another reason that affected this shift was the nature of American involvement in the 1971 Indo-Pak war. The pro-Pakistan tilt of the Nixon administration was apparent in the stationing of the *USS Enterprise* in the Bay of Bengal. It was the juxtaposition of these two events that led India into believing that it had to become self reliant in order to offset the pressure that the superpowers could place on India and avoid such a situation in the future

The dissertation has been divided into five chapters. The "Introduction" gives an overview of the entire dissertation. It also uses the theories of Neo-Realism and Graham Allison's Models of Decision Making to analyse the delay in Indian testing in face of the Chinese nuclear threat. While neo-realism proves not to be of much use for understanding the delay; Graham Allison's Models Decision Making especially Model I which is called the Rational Actor Model and the Governmental Politics Model which is Model III are of immense use to arrive at a comprehensive understanding of the Indian nuclear decision

making process during this period and study the interplay of the various socio-economic-political factors. Apart from these factors another important element that affected the Indian nuclear decision making during this period is the domestic technological capability as well as the scientific leadership. The change in the scientific leadership's outlook after Bhabha's death as well as the underperformance of various crucial elements of the Indian nuclear programme like the CIRUS and Phoenix are also very crucial factors that had a big role to play in the Indian delay in conducting the Peaceful Nuclear Explosion till May 1974.

The second chapter entitled "Policy of Ambiguity" tries to map out the ambiguity in the Indian nuclear decision making during the period under study. The chapter does this through a content analysis of the various speeches and statements made by leaders such as Jawaharlal Nehru, Homi J. Bhabha, Lal Bahadur Shastri and lastly, Indira Gandhi. It is important to study the statements and speeches made by these four individuals as they are the most important actors in the Indian nuclear decision-making apparatus during this period. An attempt has also been made in this chapter to see whether the Indian ambiguity is a result of India's attitude towards arms control, and opposition to building nuclear weapons. This juxtaposed with the knowledge of the deterrent potential of the nuclear weapon combined with the belief that nuclear power could satisfy India's future energy needs led to the ambiguity in the Indian decision-making process.

The third chapter is titled "Internal and External Dynamics." The chapter maps out the two sets of responses that were generated in India as a result of the Chinese nuclear test. The first response that has been labelled as "Internal Dynamics" studies the move that occurred towards a nuclear weapons programme in the wake of the Chinese test. This shift was a very gradual and ambiguous shift which was initiated with Shastri's 27 November 1964 speech in the Parliament. The ambiguous policy was continued throughout this period under study right up to the May 1974 PNE. The main aim of this section is to trace out the development of the Indian nuclear programme and bring out the movement towards a weapons programme. The second section in this chapter traces out the Indian quest for an external security guarantee that began with Shastri broaching the

issue in London in December 1964, following which India sought a joint, multilateral guarantee from Moscow and Washington. The issue of a guarantee was then expanded to include all non-nuclear powers and was taken up at the UN where it was attenuated to fit with the Kosygin formula. It was then taken out of the UN, as India realised that the veto would hamper any dialogue on securing a guarantee at the UNSC, and again explored in US and USSR. Since no positive assurance was forthcoming from the US and the USSR Mrs Gandhi questioned the viability of the guarantee while focussing on self-reliance thus ending India's quest for a security guarantee. The Chinese threat during the 1965 Indo-Pak war, the security guarantee failing to materialise led India to realise the importance of possessing a deterrent against the Chinese nuclear weapon and secure itself against future nuclear blackmail.

The fourth chapter "NPT Negotiations and the 1971 War" focuses on the nature of the NPT negotiations of which India was a very active participant in the early years. However, as the negotiations progressed it became clear to the Indian government that the treaty would be inherently discriminatory as it would lead to the creation of two classes of states – the nuclear "haves" and the "have nots." Such a discriminatory treaty was unacceptable to India as it was inimical to India's security interests. In the later stages of the negotiations India withdrew from active participation in the Eighteen Nation Committee on Disarmament (ENDC) negotiations. Thus, when the NPT was put to vote on 12 June 1968 India refused to sign the treaty.

The American involvement in the 1971 war and the "Nixon tilt" towards Pakistan in this war acted as a catalyst in the Indian decision to go ahead with the 1974 PNE. During the course of the war, the American not only supported Pakistan at the UNSC, but also provided it with arms and other military equipment through other countries as the US could not supply arms to Pakistan due to a Congressional law prohibiting such transfers. Apart from this at the height of the 1971 crisis, the Nixon administration deployed the *USS Enterprise* in the India Ocean on the pretext of evacuating the foreigners stranded in East Pakistan. However, India did not miss the real motive behind the stationing of the Seventh Fleet was not hidden from anyone. Indira Gandhi had ensured Soviet assistance

in the 1971 was as she had signed the Indo-Soviet Treaty of Peace, Friendship and Cooperation in August 1971. The US's deployment of the Seventh Fleet in the Bay of Bengal saw the Soviet Union coming to India's aid. The Seventh Fleet withdrew from the Bay of Bengal as soon as the Soviets informed the Americans that the Soviet fleet in the Western Pacific was being put on alert. What the NPT negotiations as well as the nature of the American involvement in the 1971 crisis did was that they put the Indian nuclear programme on the fast-track towards a Peaceful Nuclear Explosion (PNE).

In light of the above, it would be correct to state that the Indian delay in testing its nuclear device after the Chinese test in 1964 can be attributed to the interplay of several factors. In course of the dissertation, it has been established that the Indian attitude towards arms control, combined with concerns relating to nuclear power and the traditional opposition to the nuclear weapons contributed the ambiguity in the Indian nuclear decision making. This coupled with the lack of a scientific leadership that was in favour of the SNEP programme after Bhabha's death also contributed to the Indian delay. The death of Shastri and Bhabha in close succession also had a major role to play in the Indian delay in testing after the Chinese nuclear test. This was so because of the fact that Indira Gandhi after taking over as Prime Minster after Shastri's death was politically weak and needed time to consolidate her political base. Apart from this, the economic situation that prevailed during that phase also made it difficult for India to strike a balance between allocation of resources between the needs of economic development and the demands that security concerns made on it. The economic situation also made it economically unaffordable for India to possess a full fledged nuclear deterrent inclusive of the requisite delivery systems. Moreover, the CIRUS and Phoenix were functioning much below their rated capacity. Thus, India did not possess enough plutonium for the test before 1969. The Indian nuclear programme was put on the fast-track towards a Peaceful Nuclear Explosion (PNE) due to the NPT negotiations as well as the nature of the American involvement. As detailed above, these two events made India realize the importance of projecting its power capabilities and following "national-interest" based policies. The PNE was the prefect answer. Thus, in 1974 Indira Gandhi took the decision to go ahead with the PNE and the test was conducted on 18 May 1974.

REFERENCES
(* indicates primary sources)

Abraham, Itty (1999), *The Making of the Indian Atomic Bomb: Science, Secrecy and the Postcolonial State*, New Delhi: Orient Longman.

Allison, Graham T. (1971), *Essence of Decision: Explaining the Cuban Missile Crisis*, New York: Little Brown Company.

Allison, Graham T. (1999), *Essence of Decision: Explaining the Cuban Missile Crisis 2nd edition*, New York: Addison-Welsley Educational Publishers.

*Arms Control and Disarmament Agency - ACDA (1982), *Arms Control and Disarmament Agreements: Texts and Histories of Negotiations,* Washington: ACDA.

*Atom Bomb and Ahimsa (1991), *Collected Works of Mahatma Gandhi, 20 May 1946-8 August 1946*, Vol. 91, New Delhi: Publications Division, Ministry of Information and Broadcasting, Government of India.

*Atomic Energy Act, 1962, No. 33 of 1962 15 September 1962 (1962), downloaded on 9 August 2005, available online at http://www.aerb.gov.in/t/actsrules/atomicenergyact_1962.htm.

*Battle, Joyce (undated [a]), "Document 7 – State Department Telegram for Governor Harriman from the Secretary", *National Security Archive Electronic Briefing Book,* (6), 27 February, 1965, downloaded on 9 February 2006, available at http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB6/ipn14_1.htm.

*Battle, Joyce (undated [b]), "Document 14 – Memorandum from the State Department: Security Assurances for India, April 20, 1967, with attached Memorandum of Conversation; Rough Translation of the Revised Russian Draft; and Memorandum for the President", *National Security Archive Electronic Briefing Book* (6), downloaded on 9 February 2006, available at http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB6/ipn14_1.htm.

*Bhabha, Homi. J. (1964), "The Implications of a Wider Dispersal of Military Power for World Security and the Problem of Safeguards", *Proceedings of the Twelfth Pugwash Conference on Science and World Affairs, Udaipur*, London: Taylor and Francis.

Bhatia, Shyam (1979), *India's Nuclear Bomb*, Ghaziabad: Vikas.

Bundy, McGeorge (1988), *Danger and Survival: Choices about the Bomb in the First Fifty Years*, New York: Random House.

Burns, E. L. M. (1969), "The Nonproliferation Treaty: Its Negotiations and Prospects", *Asian Survey*, 23 (4): 788-807.

Canadian Department of Foreign Affairs and International Trade, downloaded on 20 January 2006, available at http://www.dfait-maeci.gc.ca/nndi-agency/non-proliferation-en.asp.

*Central Intelligence Agency (1965), *India's Nuclear Weapon Policy: Special National Intelligence Estimate*, 21 October 1965, downloaded on 15 October 2005, available at http://www2.gwu.edu/~nsarchiv/NSAEBB/NSAEBB187/IN09.pdf.

Cha, Victor D. (2003), "Nuclear Weapons, Missile Defence, and Stability: A case for Sober-Optimism", in Muthiah Alagappa (ed.) *Asian Security Order: Instrumental and Normative Features*, Stanford: Stanford University Press.

Chapman, Graham P. (2003), *The Geopolitics of South Asia: From Early Empires to the Nuclear Age*, Aldershot: Ashgate Publishing Limited.

Chari, P. R. (1979), "Indo-Soviet Military Cooperation: A Review", *Asian Survey*, 19 (3): 230-244.

Chellaney, Brahma (1993), *Nuclear Proliferation: The US-India Conflict*, New Delhi: Orient Longman.

Chengappa, Raj (2000), *Weapons of Peace: The Secret Story of India's Quest to be a Nuclear Power*, New Delhi: Harper Collins Publishers.

Dhar, P. N. (1988), "The Indian Economy: Past Performance and Current Issues", in Robert E.B. Lucas and Gustav F. Papanek (eds.) *The Indian Economy: Recent Developments and Future Prospects*, New Delhi: Oxford University Press.

Dixit, Abha (1996), "Status Quo: Maintaing Nuclear Ambiguity", in David Cortright and Amitabh Mattoo (eds.) *India and the Bomb: Public Opinion and Nuclear Options*, New Delhi: Bahri Sons.

Dixit, J. N. (2002), *India Pakistan in War and Peace*, New Delhi: Books Today.

Dowty, Alan (1978), "Nuclear Proliferation: The Israeli Case", *International Studies Quarterly*, 22 (1): 79-120.

*Eighteen-Nation Committee on Disarmament United Nations (2005), "President Johnson's 21 February message to the ENDC," Michigan: University of Michigan Library, downloaded on 19 February 2006, available at http://www.hti.umich.edu/cgi/t/text/pageviewer-idx?c=endc;cc=endc;idno=4918260.0287.001;q1=21%20February%201967;frm=frameset;view=text;seq=11;page=root;size=s.

*Gandhi, Sajit ed. (2005a), "Handwritten Letter from President Nixon to President Yahya, August 7, 1971", *The Tilt: The U.S. and the South Asian Crisis of 1971, National Security Archive, Electronic Briefing Book* (79), downloaded on 22 March 2006, available at http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB79/BEBB20.pdf.

*Gandhi, Sajit ed. (2005b), "U.S. Embassy, New Delhi Cable, Selective Genocide, March 29, 1971", *The Tilt: The U.S. and the South Asian Crisis of 1971*, National Security Archive Electronic Briefing Book No. 79, downloaded on 22 March 2006, available at http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB79/BEBB3.pdf.

Goldstein, Avery (1992), "Robust and Affordable Security: Some lessons from the Second-Ranking Powers during the Cold War", *Journal of Strategic Studies*, 15 (4): 476-527.

Gowing, Margaret (1964), Britain *and Atomic Energy, 1939-1945,* London: Macmillan.

Gowing, Margaret (1974), Independence *and Deterrence: Britain and Atomic Energy 1945-1952, vols. 1 and 2*, London: Macmillan.

Graham, Thomas and Leonor Tomero (2000), "Obligations for us all: NATO & Negative Security Assurances", *Disarmament Diplomacy* (49), downloaded on 7 January 2006, available at http://www.acronym.org.uk/dd/dd49/49nato.htm.

Harkavy, K. (1977), Israel's *Nuclear Weapons: Spectre of Holocaust in the Middle East*, Denver: University of Denver Press.

Hoffman, Steve A. (1990), *India and the China Crisis*, Berkeley: University of California Press.

Holloway, David (1980), *The Soviet Union and the Arms Race,* New Haven: Yale University Press.

"Indian Scientist Rejects 'Peaceful' Nuclear Test Claim," (1997), *AFP*, Hong Kong, 10 October 1997, in FBIS Document FTS19971010000316, 10 October 1997.

Jain, J. P. (1974), *Nuclear India, Vol. 1 and 2*, New Delhi: Radiant.

Jaipal, Rikhil (1977), "The Indian Nuclear Explosion," *International Security*, 1 (4): 44-51.

**Jawaharlal Nehru Speeches: March 1963-May 1964* (1968), Vol. 5, New Delhi: Publications Division, Ministry of Information and Broadcasting, Government of India.

**Jawaharlal Nehru Speeches: September 1957-April 1963* (1964), Vol. 4, New Delhi: Publications Division, Ministry of Information and Broadcasting, Government of India.

**Jawaharlal Nehru, India's Foreign Policy, Select Speeches, September 1946- April 1961* (1961), New Delhi: Publications Division, Ministry of Information and Broadcasting, Government of India.

Johnson, Rebacca (1997), "A Comprehensive Test Ban Treaty: Signed but not Sealed," *Acronym Report* (10), downloaded on 15 March 2006, available at http://www.acronym.org.uk/acrorep/a10intro.htm.

Jones, Rodney W. (1985), "India", in Jozef Goldblat (ed.) *Non-Proliferation: the Why and the Wherefore*, London: Taylor and Francis.

Kapur, Ashok (1976), *India's Nuclear Option: Atomic Diplomacy and Decision Making*, New York: Praeger.

Kapur, Ashok (1987), *Pakistan's Nuclear Development,* New York: Croom Helm.

Karnad, Bharat (2002), *Nuclear Weapons and Indian Security: The Realist Foundations of Strategy*, New Delhi: Macmillan India.

Keohane, Robert O. (ed.) (1986), *Neorealism and its Critcs,* New York: Columbia University Press.

Kohl, Wilfred L. (1971), *French Nuclear Diplomacy*, Princeton: Princeton University Press.

Kux, Dennis (1994), *Estranged Democracies*, New York: Sage Publications.

Lewis, John W. (1988), *China Builds the Bomb,* Stanford: Stanford University Press.

**Lok Sabha Debates* (1964), Vol. 35, 3rd Series, New Delhi: Ministry of Information and Broadcasting, Government of India.

*Manekar, D.R. (1973), *Lal Bahadur Shastri*, New Delhi: Publication Division, Ministry of Information and Broadcasting, Government of India.

Mearshimer, John J. (1994-95), "The False Promise of International Institutions," *International Security*, 19 (3): 5-49.

Mirchandani, G.G. (1968), *India's Nuclear Dilemma*, New Delhi: Popular Book Services.

Mishra, Gulab "Prakhar" (1987), *Indo-Pak Relations*, New Delhi: Ashish Publishing House.

Mishra, S.K. and V. K. Puri (1996), *Indian Economy: Its Development and Experience*, Bombay: Himalaya Publishing.

Morris-Jones, W. H. (1966), "India: The Trial of Leadership," *Asian Survey*, 6 (2): 67-75.

Moshaver, Ziba (1991), *Nuclear Weapons Proliferation in the Indian Subcontinent*, Basingstoke: Macmillan.

Mullick, B. N. (1971), *My years with Nehru: The Chinese* Betrayal, Bombay: Allied Publishers.

Negin, Evgeny A. and Yuri N. Smirnov (1999), "Did the USSR Share Atomic Secrets with China?" *Parallel History Project on NATO and the Warsaw Pact*, Zurich: Switzerland, downloaded on 22 March 2006, available at http://www.isn.ethz.ch/php/documents/collection_11/texts/Negin_Smirnov_engl.htm

Nichols, Kenneth D. (1987), *The Road to Trinity*, Morrow, New York: Morrow.

Noorani, A.G. (1967), "India's Quest for a Nuclear Guarantee," *Asian Survey*, 7 (7): 490-502.

Norman, Dorothy (1965), *Nehru: The First 60 Years*, London: The Bodley Head.

Ollapally, Deepa M. (2001), "Mixed motives for India's search for Nuclear Status", *Asian Survey*, 41 (6): 925-942.

Patil, R. M. L. (1969), *India –Nuclear Weapons and International Politics*, New Delhi: National Publishing House.

Perkovich, George (2000), *India's Nuclear Bomb: The Impact on Global Proliferation*, New Delhi: Oxford University Press.

Perkovich, George (2002), "What Makes the Indian Bomb Tick?", in D.R. Sardesai and Raju G.C. Thomas (eds.) *Nuclear India in the Twenty-First Century*, New York: Palgrave-Macmillan.

Poulose, T.T. (ed.) (1978), *Perspectives of India's Nuclear Policy*, New Delhi: Young Asia Publications.

Pranger, R.J. and D.R. Tahtinen (1971), Nuclear *Threat in the Middle East*, Washington: Institute for Public Policy Research.

*Prasad, S. N. (1992), *Official 1971 War History*, New Delhi: History Division, Ministry of Defence, downloaded on 16 April 2006, available at http://www.subcontinent.com/1971war/episodes.html

Prashant, G.N. (2004), "The Pianist", *The Hindu*, New Delhi, 28 September 2004, downloaded on 17 August 2005, available at http://www.hinduonnet.com/thehindu/mp/2004/09/28/stories/2004092800880100.htm.

*President Johnson's statement on October 16, 1964, Document no. 163 – Circular Airgram from the Department of State to Certain Posts (2001), *Foreign Relations, 1964-1968, National Security Policy*, Washington: United States Government Printing Office, downloaded on 13 September 2005, available at http://www.state.gov/r/pa/ho/frus/johnsonlb/x/9064.htm.

*Prozumenschikov, M.Y. (1996-1997), "The Sino-Indian Conflict, the Cuban Missile Crisis and the Sino-Soviet Split, October 1962: New Evidence from the Russian Archives", *Cold War International History Project Bulletin* (8-9), pp. 251-255, downloaded on 26 November 2005, available at http://www.wilsoncenter.org/topics/pubs/ACF197.pdf

Ramanna, M.V. (1998), *The Indian Nuclear Bomb - Long in the Making*, Boston: MIT Center for International Studies, downloaded on 17 August 2005, available at www.geocities.com/m_v_ramana/nucleararticles/precis98.pdf.

*Ramanna, Raja (1991), *Years of Pilgrimage: An Autobiography*, New Delhi: Viking.

Rangaswami, K. (1964), "Leaders Reject Demand for Atom Bomb", *The Hindu*, New Delhi, 9 November 1964.

Rangaswami, K. (1965), "AICC May Debate Nuclear Policy", *The Hindu*, New Delhi, 6 Jan 1965.

Rao, K.V. Krishna (1991), *Prepare or Perish: A Study of National Security*, New Delhi: Lancer Publications.

Rhodes, Richard (1986), *The Making of the Atomic Bomb,* New York: Simon and Schuster.

Roy, Ramashray (1974), "India 1973: A year of Discontent", *Asian Survey*, 14 (2):115-124.

Sagan, Scott (1996-97), "Why do States Build Nuclear Weapons: Three Models in Search of a Bomb", *International Security*, 21 (3): 54-86.

Scheinman, Lawrence (1965), *Atomic Energy Policy in France under the Fourth Republic*, Princeton: Princeton University Press.

Seaborg, Glenn and Benjamin S. Loeb (1987), *Stemming the Tide: Arms Control in the Johnson Years*, Lexington: Lexington Books.

**Selected Speeches of Indira Gandhi, August 1969-August 1972,* (1975), New Delhi: Publications Division, Ministry of Information and Broadcasting, Government of India.

**Selected Speeches of Indira Gandhi, January 1966-August 1969,* (1982), New Delhi: Publications Division, Ministry of Information and Broadcasting, Government of India.

Shelvankar, K. S. (1967), "Chagla Restates India's Stand", *The Hindu*, New Delhi, 28 April 1967.

Shikaki, Khalil (1985), "The Nuclearization Debates: The cases of Israel and Egypt", *Journal of Palestine Studies*, 14 (4): 83.

*Smith, Louis J. and Edward C. Keefer eds. (2005a) "Editorial Note", *Foreign Relations of the United States 1969-1976, South Asia Crisis 1971*, Vol. XI. Washington: United States Government Printing Office.

*Smith, Louis J. and Edward C. Keefer eds. (2005b) "Memorandum From the President's Assistant for National Security Affairs (Kissinger) to President Nixon, 28 April 1971", in, *Foreign Relations of the United States 1969-1976, South Asia Crisis 1971*, Vol. XI. Washington: United States Government Printing Office.

*Smith, Louis J. and Edward C. Keefer eds. (2005c) "Memorandum of Conversation, 10 May 1971", in, *Foreign Relations of the United States 1969-1976, South Asia Crisis 1971*, Vol. XI. Washington: United States Government Printing Office.

*Smith, Louis J. and Edward C. Keefer eds. (2005d) "Telegram From the Consulate General in Dacca to the Department of State, 6 April 1971", in, *Foreign Relations of the United States 1969-1976, South Asia Crisis 1971*, Vol. XI. Washington: United States Government Printing Office.

*Smith, Louis J. and Edward C. Keefer eds. (2005e) "Telegram From the Department of State to the Embassy in India, 14 December 1971", in, *Foreign Relations of the United States 1969-1976, South Asia Crisis 1971*, Vol. XI. Washington: United States Government Printing Office.

Sullivan III, Michael J. (1973), "Re-Orientation of Indian Arms Control Policy, 1969-1972", *Asian Survey*, 13 (7): 691-706.

Sundaram, K. (1972), "Political Response to the 1996 Devaluation", *Economic and Political Weekly*, 2 (37): 1120-1139.

Thayer, Bradley A. (1995), "The Causes of Nuclear Proliferation and the Utility of the Nuclear Nonproliferation Regime", *Security Studies*, 4 (3): 463-519.

The Hindu (1964a), "Bhabha: India Can Make Atom Bomb in 18 Months", *The Hindu*, New Delhi, 5 October 1964.

The Hindu (1964b), "Realism in Defence Policy", *The Hindu*, New Delhi, 8 December 1964.

The Hindu (1965), "Swaran Singh Talks in UK", *The Hindu,* New Delhi, 1 February 1965.

The Hindu (1966a), "India Will Strive for Nuclear Competence", *The Hindu*, New Delhi, 11 May 1966.

The Hindu (1966b), "India warns of shift in nuclear policy", *The Hindu*, New Delhi, 12 May 1966.

The Hindu (1967), "Japan Receptive to Indian Move on Nuclear Pact", *The Hindu*, New Delhi, 10 March 1967.

The Hindustan Times (1967), "India keen on Nuclear Guarantees for US, Russia", *The Hindustan Times*, New Delhi, 13 April 1967.

The Indian Express (1964), "Nath Pai wants to produce the bomb", *The Indian Express*, New Delhi, 19 October 1964.

The Indian Express (1965), "India Five Point Plan to Check N-Weapons", *The Indian Express*, New Delhi, 5 May 1965.

Waltz, Kenneth N. (2003), *"The Anarchic Structure of World Politics",* in Robert J Art and Robert Jervis (eds.) *International Politics: Enduring Concepts and Contemporary Issues*, New York: Longman.

Waltz, Kenneth N. (1979), *Theory of International Politics*, New York: Random House.

Yadav, J. N. S. (1971), *Lal Bahadur Shastri: An Autobiography,* New Delhi: Hariyana Prakashan.