"INDO-PAK NUCLEAR TESTS (1998) : IMPLICATIONS FOR REGIONAL SECURITY IN SOUTH ASIA"

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CERTIFICATE

This is to certify that the dissertation entitled, **"INDO-PAK NUCLEAR TESTS (1998) : IMPLICATIONS FOR REGIONAL SECURITY IN SOUTH ASIA"** submitted by **AMIT KUMAR** in partial fulfil ment of the requirements for the award of the degree of **MASTER OF PHILOSOPHY,** is his own work and has not been submitted for the award of any degree or diploma, in part or full, of this university or any other University

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

PROF. K. WARIKOO
(Chairperson)

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(Supervisor)

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Amit Kumar

PREFACE

India and Pakistan, the two major states of South Asia conducted Nuclear test in May 1998, respectively in Pokhran and Chaggai. With this the lingering doubts about their nuclear capability was removed. This event should be considered as a landmark development in the arena of international politics in general and regional politics in particular. The objective of this proposed study is to examine the ramifications of these tests in the regional security context. The study is very timely as the on going crisis between India and Pakistan (heavy deployment of armed forces on both sides of the borders) has brought back the nuclear-issue on the center-stage. For this research work I have formulated three hypotheses, they are:

1. Nuclear weapons have destabilizing consequences. These will only hamper the growth of co-operation among the South Asian countries and instead cause turmoil.
2. Arms – race is a natural corollary of the tests.
3. There are more contentious issues in the region than elsewhere.

The work has been divided into five sections or chapters. Chapter I, which is Introduction, familiarizes us with the development of Indo-Pak nuclear programme. Chapter II seeks to explain the nuclear programme and policy of India and Pakistan which will be helpful in our understanding of the implications of

these tests. Chapter III gives a detailed account of the Pokhran and Chagai tests and the events leading upto these tests. Chapter IV is an effort at understanding and analyzing the implications of these tests for regional security. The final chapter (chapter V, Conclusion) discusses the choices before Indian and Pakistani nuclear policy makers and summarises the findings of the study.

CHAPTER I

INTRODUCTION

Nations acquire nuclear weapons broadly for two purposes- for deterrence and for defence. With regard India and Pakistan, they have differing nuclear perceptions and motivations, though of course they have common motivation to acquire nuclear weapon, capability for security, prestige and influence. India sees its nuclear weapon as "credible minimum nuclear deterrent", for Pakistan the nuclear tests were conducted "to restore the strategic and military balance in the region" and "were essentially a defensive act".

The nuclear programme and policy of India and Pakistan has evolved over a considerable period of time. This chapter gives an analytic history of evolution of Indian and Pakistani nuclear programme.

India's first Prime Minister Jawahar Lal Nehru laid down the basic framework of Indian nuclear policy and diplomacy. Nehru, like his master, the great Mahatma Gandhi, was an idealist. He was firmly committed to disarmament and peaceful settlement of international disputes. However, this didn't mean that he compromised with national interest, particularly, India's security. He was as advocate of scientific temper. He promoted research in the field of atomic energy, though for peaceful Purposes.

Nevertheless, he didn't close the option of using the atomic energy for country's defence if it ever became essential. Despite his commitment to disarmament, Nehru was fully aware of the potential security benefits that would accrue from India's nuclear programme. Thus on the one hand be said: "I think we must develop it for peaceful purposes", but, he added: of course, if we are compelled as a nation to use it for other purposes, possibly no pious sentiments will stop the nation from using it that way.[1] Thus, he did not rule out the use of atomic energy for turning into a weapon for defence. While India, under his leadership, was committed to disarmament and peaceful uses of atomic energy, yet if national interest so demanded, India could use it for other purposes. These other purposes were obviously weaponization in the interest of India's security. Thus Nehru's scientific temper and vision enabled India to initiate research in nuclear science, with the option of using this power, if necessary for weaponization. So, it was not as if it was a sudden development that India acquired nuclear weapons and conducted Pokhran-1 in 1974 or that she conducted Pokhran-II tests and weaponized in 1998.

The evolution of India's nuclear policy should be traced during the half century prior to Pokhran-II. The atomic energy

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1. Zia Mian, '*Homi Bhabha Killed a Crow*' in Zia Mian and Ashis Nandy, The Nuclear Debate: Ironies and Immoralities, Colombo, p.12, quoted by Amitabh Mattoo, India's Nuclear Deterrent, Har Anand, New Delhi, 1998.

programme of India began incidentally even before she gained independence. Dr.Homi Bhabha the most important nuclear scientist of his time wrote in 1944 to late J.R.D Tata, the doyen of Indian industry, and the then chairman of sir Dorabji Tata trust suggesting the setting up of an institute devoted to basic scientific and technological research. The result was the establishment of the Institute of Fundamental Research, which became the platform that Homi Bhabha needed. According to Dr. Raja Ramanna who was responsible for the first nuclear explosion of 19 74 "The experimental groups started by Bhabha deserve special mention because they were the forerunners of all indigenous technological activity in the country and heralded the beginnings of an intensive atomic energy programme in India."[2] According to Raja Ramanna India had intentions, as early as 1947, of developing an atomic energy programme for all purposes. In August 1948, the government constituted the Atomic Energy Commission of India (AEC) under the chairmanship of Dr. Homi Bhabha. During the first decade after the setting up of the AEC, the earliest of the laboratory scale nuclear experiments were also conducted under the supervision of Bhabha. 'In these initial years it was the close intellectual relationship between Bhabha and the first Prime

2. Raja Ramanna, *Years of Pilgrimage*, Viking, New Delhi, 1991, p.308.

Minister Jawahar Lal Nehru, that laid the foundation of subsequent self-sufficiency in diverse scientific fields including nuclear Energy.[3]

Homi Bhabha's logic for the development of Indian atomic energy programme was based on the belief that as the country was not sufficiently endowed with resources of conventional fuel, development of nuclear energy for power generating reactor came up at Tarapore in 1969. For this reactor, fuel was imported fm the United States., till it was discontinued by Americans in 1980s because of India's continued refusal to sign the discriminatory non-proliferation treaty. In the meantime, Canada assisted India in the construction of the candu-type reactors in Rajasthan. While designing the Cirus reactor Canada offered to help with the first fuel charge of natural uranium. However, Indian scientists managed to demonstrate their ability by developing the fuel charge for the reactor, and of a 'better quality than had hitherto been offered'.[4] Because Canada couldn't supply heavy water, the United States agreed to sell 21 short tons in March 1956. It was therefore, called cirus ('Canadian-Indian reactor. U.S.').

Dr. Homi Bhabha died in an air crash in January 1966. He was succeeded by Dr. Vikram Sarabhai who continued to work with the same zeal in the development of India's nuclear programme. Dr. H.N. Sethna took over as head of the Atomic Energy commission in

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3. Jaswant Singh, *Defending India*, Macmillan, Banglore, 1998, p. 308.
4. Raja Ramanna, *Years of Pilgrimage*, op. cit. p. 71.

early 1970s. Dr. Raja Ramanna became Director of the Atomic Energy Establishment (set up in 1957), which was renamed after Homi Bhabha's death as the Bhabha Atomic Research Centre (BARC). Meanwhile, International Atomic Energy Agency had also been set up in 1958. India became its founder –member and has continued to play a very important role in it. India's joining the International Atomic Energy resulted in a regime of inspections of nuclear installation in the country. Predictably, these regimes became, or tended to be, intrusive and sovereignty violative regimes. Commenting on conditionalities of the regime of inspections, Dr. Raja Ramanna observed: 'In the proposal made to us, there was neither a note of persuation, nor an attitude of give and take in the general interest of the world non-proliferation. It was thrust upon us as though the superpowers were chosen custodians to uphold the peace of the world. Although we were bitterly criticized by the west and were woefully short of time, experience and confidence involving high technology self-reliance, truly began at this point of time.'[5]

In the period between 1954 and 1963, India developed the required infrastructure, trained manpower resources and internal inputs particularly from the US, to create programmes for the peaceful uses of atomic energy. India, however remained firmly

5. Raja Ramanna, *Years of Pilgrimage*, op. Cit., p. 94.

opposed to the acquisition of nuclear arms and to nuclear weapon tests.

The following important elements have been the basis or core of India's nuclear policy since the 1950s:

- India remained firmly opposed to nuclear weaponization and the development of weapons of mass destruction;
- India desired international community to accept a time-bound programme for complete and general disarmament, including nuclear disarmament, without any discriminatory provisions;
- India was firm in its desire to acquire and develop nuclear technology and higher technologies for peaceful purposes, the ultimate objective being to become self-reliant in this important sphere of productive scientific and technological activity which was of vital interest for India's development and economic well being;
- India was willing to submit itself to controls safeguards and inspections if they were made equally applicable to all countries, regardless of their influence and power.

These above mentioned points are the four corners of India's nuclear policy from Nehru's time to the Prime Ministership of Atal Behari Vajpayee. To sum up, India has always stood for the elimination of weapons of mass destruction. But till such time as

that happens India would not hesitate to develop its own technology for peaceful purposes and submit itself to such safeguards and inspections as are equally applied to all nations. India has consistently opposed discriminatory regimes and, therefore, refused to sigh the non-proliferation treaty.

The nuclearization of India's security environment intensified in the early 1960s. Nehru himself had anticipated that as long as China was denied representation in the United Nations, it would be futile to talk about international regimes to control the proliferation of nuclear weapons. His anticipation that China would soon become a nuclear weapons state proved true in October 1964, though by that, time Nehru had passed away. Besides, by that time the nuclear-armed naval forces of the two super powers had begun to be deployed in the Indian ocean. The increasing presence of the super-power navel forces in the Indian Ocean also progressively increased the quality and quantity of nuclear weapons deployed on India's southern flank.

In early 1960s Sino-American relations were very hostile. The US administration was anticipating that China was going to become a nuclear power with that anticipation, according to former foreign secretary, J.N. Dixit, 'Washington had suggested to New Delhi that in the context of India's technological and trained manpower capacities, it should become a nuclear weapons power, as a counter

to soviet capacities and Chinese potentialities.[6] However, Prime Minister Nehru firmly turned down these suggestions from the United States reiterating his deep commitment to the peaceful use of nuclear energy. This decision was that of 'idealist' Nehru as against 'pragmatic' Nehru who had said as early as 1948 that if it became necessary in national interest to use the nuclear energy for 'other purposes', India would not hesitate doing that. At that time (early 1960s), India had very friendly relations with the Soviet Union. Therefore, perhaps Nehru didn't appreciate the US suggestion to acquire the nuclear weapon as a counter to Soviet Capacities.

China 'detonated' its first nuclear weapon on 16 October 1964 at the Lop Nor site in Xinjiang. Lal Bahadur Shastri had been P.M for just over 4 months. In a personal recollection, K. Subrahmanyam wrote: 'October 1964 was one of the defining moments in the history of Indian nuclear policy. Up to that date India only thought of developing a capability, which could be converted into a nuclear weapon option, if it became necessary. On that day when China became a nuclear weapon power, it became imperative for Indian policy-makers to give serious consideration for the country acquiring nuclear weapons. A few days later, Dr. Bhabha talked of India being in a position to go nuclear in about

6. J.N. Dixit, *Across Borders*, Picus, New Delhi, p. 284.

eighteen months following a decision and that it would cost only Rs. 18 Lakhs per weapon. He was immediately rebuked by V.K. Krishna menon who was fervent anti-nuclear campaigner.[7]

K. Subrahmanyam, who was then a deputy secretary in the ministry of Defence, sent a note to the defence secretary suggesting that the government should set up a committee under Dr. Bhabha to analyse the implications of the Chinese bomb to India's security and our response to it. Mr. K.R. Narayanan (at that time in the ministry of External Affairs now president of India since 1997) also sent up a note, making out a case for India exercising the nuclear option. The Atomic Energy commission also favored positive move in the direction of India exercising nuclear option. Thereafter, a secretaries committee was indeed appointed. Therefore, according to Subrahmanyam, India's nuclear security concern goes back to 1964 and was directly linked with the chinese nuclear test. After acquiring nuclear weapons China declared 'no-first-we', which means that china promised not to use its nuclear weapons unless she was first subjected to nuclear attack. However, this declaration was not credible since India was familiar with the chinese betrayal when it launched its offensive action deep into the Indian territory in 1962. The chinese had described this action as 'defensive action'. So, India's scecpticism regarding chinese bomb could be justified.

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7. K. Subrahmanyam, *Indian Nuclear Policy*-1964-98 '(a personal recollection) in Jasjit Singh, ed. Nuclear India, knowledge world in Association with IDSA, New Delhi, 1998, p. 26.

In the aftermath of the first chinese nuclear Explosion options for the Lal Bahadur Shastri government were limited to either address the issue of nuclearisation in the neighborhood, or to persist with global disarmament and continue to remain 'non-nuclear' or to seek international guarantees. Shastri decided to seek external deterrence from Britain. He made request for such a deterrence to the British Prime Minister, Harold Wilson, during his visit to London in December 1964, but there was no favorable response from the British government.

As was natural, an important section of the enlightened Indian opinion began demanding nuclear weaponization of India. As the debate sharpened, and as even the younger members of the ruling congress party at Durgapur session in 1965 put pressure on the prime minister to give up the policy of 'nuclear abstinence', Shastri made only slight modification in his opposition to nuclear weapons. He said that India would not embark on the nuclear programme 'now'. This implied that there was possibility of the govt. changing its policy in future. Meanwhile, Shastri sanctioned the proposal put forward by Dr. Homi Bhabha for investigating a subterranean Nuclear Explosion project (SNEP). This sanction was kept a secret at that time. Thus was planted the seed for Pokhran-1 of 1974 However, India didn't give up its effort for disarmament and arms control.

In 1965, along with a small group of non-aligned countries, India moved Resolution No. 2028 in the UN General Assembly. It sought an international non-proliferation agreement under which the nuclear weapon states would agree to give up their weapon provided others countries refrained from developing or acquiring such weapons. The intention of India was to ensure that there was reciprocity of obligations between nuclear weapon states (NWS) and the small group of non-aligned countries. This balance of rights and obligations was absent when the NPT emerged in 1968. Meanwhile, Prime Minister Lal Bahadur Shastri had died in January 1966 at Tashkent soon after signing an agreement for the normalization of relations after the India-Pakistan war of 1965. Mrs. Indira Gandhi Succeeded Shastri. During this period Dr. Vikram Sarabhai was the chairman of the Atomic Energy commission. Dr. Sarabhai, the new chairman of the Atomic Energy commission, was known to be very enthusiastic about India. India exercising its nuclear option. He was of the opinion that even if india carried out a test or two, that would not make India a nuclear weapons power.

When the non-proliferation treaty was discussed in the Indian parliament in 1968, Mrs. Gandhi said India shall be guided entirely by the consideration of her national security. The Prime Minister pointed out the shortcomings and the discriminatory nature of the NPT. She warned the Lok Sabha and the country may have to

face many difficulties. It may mean the stoppage of aid and stoppage of help. Parliament endorsed the govt. decision not to sign the discriminatory NPT.

India conducted its first nuclear test on 18 May 19 74 at Pokhran in Rajasthan. Why did India decide to conduct the test, which was described as peaceful nuclear explosion (PNE). It will not be difficult to answer this 'why' if we will do and in-depth study of the then prevailing security scenario around India. Mrs. Gandhi faced the challenge of expanded nuclear weapons deployment around India and the progressive nuclear weaponization of china and Pakistan. Both the United States and the Soviet Union had forces armed with nuclear weapons deployed in the Indian ocean and the Asia-pacific region, from Hawaii to Diego Garcia. The Chinese had moved on from their conventional weapons capacities to thermo- nuclear weapons capacities with matching acquisition of delivery systems. Equally significantly, Pakistan had commenced its clandestine nuclear weaponisation programme immediately after its military defeat by India in 1971. Keeping in mind the security threats being faced by India at the strategic level, Mrs. Gandhi authorized the conducting of an underground nuclear test, which could justly be described as a dual purpose Experiment. The explosion of the nuclear device would constitute an experimental basis for a nuclear weaponisation programme, at the same time

servicing the purpose of a technology demonstration experiment for the peaceful uses of atomic energy.

The PNE of 1974 was bitterly criticized by the western countries. Adverse international reactions were not unanticipated. Having confirmed India's Nuclear capability and its potentialities, India decided to follow a policy of calibrated restraint so much s0 that she did not conduct any further Nuclear test for the next 24 years.

Moraji Desai, who was Prime Minister during 1977-79 periods, was totally opposed to nuclear weapons for India, even for civilian purpose. But, one thing that he hated more than even the nuclear weapons was India being dictated to by the nuclear weapons powers. He resisted all the pressure put on him by the US president carter during his visit to India in January 1978 to sign the NPT.

Till 1978, India had supported the idea of nuclear weapons-free zones in various parts of the world, yet India opposed a resolution on a nuclear– free zone for south Asia. India was aware of the fact that the regional and sub-regional free – zone agreement had an adverse effect on important countries like Brazil and Argentina (Treating of Tlatlalco). India, according to J.N Dixit was:'Convinced that regional and sub-regional free-zones being established was irrelevant on terms of the objectives of non-

proliferation especially when the nuclear weapons had a global reach and more so when most of the regions had at least one nuclear weapons power within the region itself'.[8]

For the first time in November 1979, the then Defence Minister, C. Subramaniam made out a case for India going nuclear. By 1980, when Mrs. Gandhi came back as the Prime Minister, it had been confirmed from several sources that Pakistani was, indeed, developing a nuclear bomb with clandestine Chinese assistance.

Mrs. Gandhi took the Pakistani threat more, seriously than Moraji Desai. She authorised Dr. Ramanna to go ahead with preparation for an underground text. The US satellites discovered the preparations and Mrs. Gandhi came under US presence not to conduct the test.

When Rajiv Gandhi took over as the Prime Minister of India he was not very enthusiastic about India exercising its nuclear option rather he was more Concerned about Pakistani Nuclear weapons Programme. Rajiv Gandhi appeared to be sending signals to the world that India had no intentions of acquiring nuclear weapons. In December 1985, Rajiv Gandhi and Pakistani President Zia-ul-Haq agreed not to attack each other's Nuclear installations. This was done to set at rest western Media rumours that India was

8. ibid. p. 422.

planning an attack on Pakistani installations at Kahuta, Just as Israel had attacked Osirak reactor in Iraq.

Pakistani nuclear, programme has a symbiotic relationship with Indian nuclear policy. Pakistan has always claimed that it developed a nuclear capability in response to a Security threat from India. More specifically, it traces the genesis of its Nuclear program to the 1974 Pokhran nuclear test.

Pakistan was a late starter in the nuclear field, and its nuclear progrmme is much smaller and limited as compared to that of India. The Pakistan Atomic Energy Commission was established in 1958, but until 1972 it was given very low priority. By contrast, India was one of the first developing countries to initiate a long-range atomic energy programme with the establishment of its Atomic Energy Commission in 1948.

Pakistan acquired its first research reactor from the USA under the 'Atoms for Peace' Programme in 1965 and did not complete the research facilities around this reactor until the early 1970s. This reactor is under safeguards. A second small research reactor was acquired from China in 1988 (27 KW capacity), and this too is under safeguards. India, on the other hand, completed its first research reactor in 1956, namely Apsara in Trombay near Bombay.

With the help of Canada, Pakistan built a 125 MW power reactor under safeguards at Karachi, which was commissioned in 1972.

Pakistan's nuclear programme received importance after 1972 when it was placed under the charge of the Prime Minister. Gradually, Pakistan started expanding its research facilities at the Pakistan Institute of Nuclear Science and Technology near the federal capital, Islamabad. However, two developments in the 1970s had most serious implications for Pakistan's nuclear programme. First, there was India's nuclear explosion of 1974 ; this changed the international climate about nuclear technology and led to the formation of the Nuclear Suppliers' Group in 1977 which imposed a strict embargo on the supplies of nuclear materials and technology to non-NPT countries. The second development was internal, when Pakistan, faced with a serious security threat from India, decided that it could not give up the nuclear option in the face of threat from a nuclear India.

The establishment of an international export control arrangement had strong negative short-term effects on Pakistan: a number of contracts which Pakistan had signed with supplier states were immediately cancelled or not honoured. These included delivery of a small heavy water plant from Germany; a fuel fabrication plant delivery from Canada, and of course, the

reprocessing plant agreement with France. In addition, Canada imposed a strict embargo on the supply of all spare parts, fuels, materials and technical services for the operation of the Karachi Nuclear Power Plant (KANUPP), which was under full safeguards.

Also, as a result of changed international opinion in the wake of India's nuclear explosion, the US enacted the Symington Law in 1976, barring aid to countries importing uranium enrichment technology. In May 1979, the USA suspended aid to Pakistan for the second time. The Symington Law was waived in 1981 for six years and again for two years in 1987.

A changed international climate regarding nuclear cooperation for peaceful purposes created serious difficulties for Pakistan and slowed down its programme. In 1976, Pakistan embarked upon a plan for building nuclear plants but none of the supplier countries were willing to cooperate. Efforts continued to purchase these nuclear power plants in the 1980s under safeguards, but it was not until 1989 and early 1990 that China and France agreed in principle to supply a 300 MW and 900 MW PWR (pressurized water reactor) respectively under safeguards. But while a formal agreement with China for a 300 MW nuclear power plant has been signed, the promised 900 MW reactor from France could not be singed. It seems that the decision in principle by France in June 1991 and by China in August 1991 to sing the NPT

(bringing all the five nuclear powers and the UN Security Council permanent members into the NPT fold) had changed the climate, and France decided not to supply the nuclear rector to Pakistan.

After Canada's refusal in 1976 to supply fuel for KANUPP, Pakistan embarked upon local production of nuclear fuel, which started in 1980. This is based on indigenously mined and processed uranium ore, and since the plant has been built by Pakistan through its own efforts it is not subjected to the IAEA safeguards. The supply of spare parts still remains a problem, but the plant has been kept in operation through indigenous efforts to manufacture spare parts.

Simultaneously, Pakistan undertook a uranium enrichment project at Kahuta in the mid-1970s, which took about a decade to complete. It was announced for the first time in 1984 that Pakistan had succeeded in enriching uranium.

Apart from its enrichment effort, Pakistan was reported to be engaged in the separation of tritium after acquiring tritium separation technology and equipment. Tritium is used for manufacturing lighter nuclear weapons.

Under Zia, Pakistan succeeded in developing a capability to produce fissile materials which could be used both for generation of electricity and for production of nuclear weapons. While Pakistan under Zia developed the capability to manufacture nuclear weapons

it avoided holding a demonstration. It appeared that the policy line was to remain one step behind India while making every effort towards a nuclear weapons capability.

In short, Zia's nuclear policy was marked by three elements; (1) the maintenance of a calculated ambiguous nuclear stance, (2) working towards a nuclear stand-off in South Asia, with Pakistan remaining demonstrably one step behind India in nuclear development, and (3) persistence in diplomatic efforts on nuclear arms control and nuclear disarmament issues with specific focus on South Asia.

Generally, nuclear policies, whether they are of the nuclear weapon states or of the non-nuclear weapon states, do not change abruptly. However, changes in their motivational and technological bases may bring about shifts of nuance and style of functioning. A major shift in Pakistan's nuclear policy from its peaceful civilian orientation to a military orientation occurred during the Bhutto regime and was maintained during Zia's rule. It appears that this policy has come to stay.

During the 20 months of Ms. Bhutto's stay in government, nuclear development activity continued unabated. The micro reactor supplied by China to Pakistan for the PINSTECH in 1988 was put into operation in October 1989. It reached its full capacity in 1990. It is used mainly for research in nuclear physics, training

nuclear specialists n producing radio-isotopes for industrial and scientific purposes.[9] The work on the upgradation of the US supplied research reactor at PINSTECH from 5MW to 10MW that began during Zia's lifetime is in progress.

Under Ms. Bhutto Pakistan continued clandestine operations to acquire nuclear equipment and materials for its nuclear weapons-related activity. In early 1990, there came to light a case of smuggling of US manufactured high temperature furnace by Pakistanis in West Germany, Switzerland and the United States.[10] There were reports in the Indian press that Pakistan was engaged in the manufacture of light nuclear weapons. This perception stems from the fact that Pakistan had acquired tritium separation technology and equipment and started its application. There were also reports that Pakistan and managed to install nuclear racks in F-16 fighters but there is no credible evidence to this effect. It is a fact that Pakistan has made strides in the field of missile development and space research. Nuclear capable ballistic missiles with a payload of 500 kg such as Hatf-I and II have been test-fired by Pakistan. They are capable of carrying a relatively crude nuclear warhead to reach major targets in northern and western India.

9. *Times of India*, New Delhi, March 5, 1990; *National*, Lahore, November 12, 1990.
10. R. Chakrapani, "Sentiments in US Congress against Aid for Pak," *Hindu*, New Delhi, October 11, 1990.

Pakistan has sent its first satellite, Badr-I, into the space and is making preparation for Badr-II.[11]

In a recent study entitled "Nuclear Ambitions" Spector thinks that Pakistan temporarily ceased production of weapons grade fissile material in early 1989 but abandoned this restraint in the wake of the crisis over Kashmir with India.[12] This does not appear to be correct because Ms. Bhutto did not have any control over the nuclear programme. As a matter of fact, the Pakistani nuclear establishment continued Pakistan's nuclear weapons-related activity.

Following the ouster of Benazir Bhutto's government through and army backed constitutional coup, Washington stopped all economic and military aid to Pakistan in August 1990, as President George Bush invoked the Pressler amendment by refusing to certify that Islamabad did not posses nuclear weapons.

The stooping of American aid did not deter Pakistan from continuing its nuclear weapons program. President Gulam Ishaq Khan, a stalwart supporter of the nuclear program, resisted American pressure. Across the political spectrum, political leadership were unanimous in rejecting US pressure to abandon the nuclear program.

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11. *Defence Journal*, Karachi, Vol. XVI, July-August, 1990, p. 54, and *Hindu*, New Delhi September22,1990

12 R. Chakrapani, "Pak N. Programme Reviewed?" *Hindu*, New Delhi, September 22, 1990.

Notwithstanding his flexibility, Nawaj Sharif remained under intense pressure to make Public Pakistan's nuclear positions. Perhaps because of this pressure, the prime minister instructed his foreign secretary Saharyar khan, to declare Pakistan's nuclear status while on a visit to the US. Mr. Khan's statement in the Washington post in early 1992 was the first time that the Pakistani government officially unveiled its nuclear weapons position.

It took time for India and Pakistan to evolve a nuclear strategy. There were minor shifts under different regimes, but the basic thrust of their nuclear programme remained the same. The Pakistani nuclear programme has a symbiotic relationship with India's nuclear programme and hence their nuclear weapon programme cannot be seen in complete isolation with one another. The domestic support for the nuclear programme in both the countries have been overwhelming. The Indian and Pakistani tests were bound to take place and it was only a matter of time, which was finally decided to be May 1998.

CHAPTER II

NUCLEAR PROGRAMME AND POLICY OF INDIA AND PAKISTAN

The Indian tests of May 11 and 13, which prompted Pakistan to follow suit, were a response from India to its perceived threat from its immediate neighbourhood China and Pakistan. Pokhran II was an expression of India's challenge to the discriminatory international regime. More importantly, the act showed India's determination to force itself into the "exclusive club" of nuclear weapon states (NWS). Pakistan replied by conducting nuclear tests in Chaggai hills on May 20 and 30, as a show of its own ambition to achieve parity with its arch-rival India. It has been claimed by Indian Policymakers and leaders that these tests are a continuation of the policies set into motion that put India on the 'path of self reliance and independent of thought and action'. The purposes of this chapter is to analyze the nuclear program and policy of India and Pakistan. By shedding light on the Indian nuclear program this chapter will try to explain Pakistan's nuclear behaviour. It attempts to understand what factors drive Pakistan's nuclear policy? Is Pakistani policy simply a mirror image of India's policy or does it have its own autonomous domestic and international variables that sustain its nuclear weapons program?

The nuclear programme and policy of India and Pakistan has evolved over a considerable period of time. The substance of the Indian nuclear policy that took shape early in the international history of nuclear energy development was; (i) to pursue a many side nuclear energy program that would be committed to the peaceful non-military use of nuclear energy and (ii) working politically towards the goal of universal nuclear disarmament. However, some time during the course of the 1960s a different motivation surfaced in the course of the development of the research side of the programme marked by ambiguity and somewhat conflicting interpretation. This was code worded India's 'Nuclear option'. Its basic content was nuclear weapons capability, which the programme certainly attained by the early 1970s. as far as Pakistan's nuclear weapon venture is concerned the realization that India could defeat Pakistan in battle (as it happened in 1971 war) determined her to acquire nuclear weapons, an aim that was expressed in a secret January 1972 meeting convened by Zulfikar Ali Bhutto to launch the Pakistani nuclear weapon programme.

Nehru's Policy

The essence of the Jawaharlal Nehru's nuclear policy was the following.

1. India should promote global disarmament and should continue playing an active role in the international disarmament negotiations, especially nuclear.

2. India should concentrate on economic development and seek accommodation with her neighbours on the principles of co-existence.

3. India missed Industrial Revolution. She should not miss another revolution, i.e. nuclear energy revolution.

4. Peaceful uses of nuclear energy have a military fallout. This nuclear option should be kept open, and the bilateral or international safeguards should not be accepted. (The ostensible reasons for this refusal is to be couched in the jargon of 'fight for sovereignty and struggle against Discrimination.')

5. Nuclear research should be conducted in all its facets, and should be kept secret.

6. Vertical and horizontal proliferation should be stopped. (By horizontal proliferation it was meant to keep China non-nuclear).

Nehru even proposed a nuclear weapon-free zone, to include the People's Republic of China. Here are a few excerpts form his speeches,

which amply substantiate the aforementioned summarization of his nuclear policy.

His first statement on the issue was quite aggressive and hostile. This was understandable, as he was not yet Prime Minister. He was speaking to a public gathering in Bombay on June 26, 1946, Nehru said:

> "As long as the world is constituted as it is, every country will have to devise and use the latest scientific devices for its protection. I have no doubt India: will develop her scientific resources; and I hope Indian scientists with 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." [1]

Thus, the idea of making nuclear weapons, though conditional, was very much there in Nehru's mind, even before independence. This option was painstakingly kept open throughout the ups and downs of international efforts and negotiations to curb nuclear proliferation.

He almost voiced the same sentiments and thoughts two years later, during a discussion on a bill in the Indian parliament, for the establishment of Atomic Energy commission. On April 16 1948 Nehru spoke to the Legislative Assembly:

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1. Bhatia, Shayam, *India's Nuclear Bomb*, Vikas, New Delhi.

"now we are facing the atomic age; we are on the verge of it... The point I should like to House to consider is this: that if we are to remain abreast in the world as a nation which keeps ahead of things, we must develop this atomic know-how. We must develop this atomic know-how. We must develop it for peaceful purposes.. Of course, if we are compelled as a nation to use it for other purposes, possibly no pious sentiments of any of us will stop the nation from using it that way."[2]

After this Mr. Nehru became more cautions in his nuclear statements. Later on, he spoke only on peaceful uses of atomic energy and did not talk on the possibilities of India going nuclear, even under compulsion. On the other hand, he began to vehemently discount the idea that India would ever resort to making and using nuclear weapons. This demand continued until the Indo-Chinese conflict of 1962. There were two imperatives for this policy. First, India had started taking an active role in Disarmament negotiations, and any suggestion of the military use of atomic know-how, however conditional, was not considered politically advisable. Secondly, international technical aid and collaborators wanted to be sure of India's nuclear intentions. Furthermore, with the appointment of Bhabha as chairman of the atomic energy commission, and knowing his convictions and leaning,

2. Ibid, p. 84.

Nehru was comfortable that Bhabha would keep the nuclear option more than open.

Post Nehru Phase

Throughout the late 60's, when negotiations were underway for the Nuclear Non-Proliferation Treaty, India attempted to seek a "special case" status, in view of "the nuclear threat and blackmail" from the People's Republic of China and thus exploited the then prevalent anti-Chinese phobia, for her own gains. What Mr. Chagla, the then External Affairs Minister of India, said in 1967, addressing Eighteen Nations Disarmament Conference (ENDC), would be helpful in assessing the historical Indian attitude towards the concept of non-proliferation. Mr. Chagla said:

> "We are of the view that any such treaty should be a significant step towards general and complete disarmament and particularly nuclear disarmament, and must meet the point of view of both nuclear weapon and non-nuclear weapon powers. A non-proliferation treaty should not be a discriminatory or unequal treaty. India's peculiar position with regard to the non-proliferation treaty is that it is a non-aligned country not in military alliance with any country nor under the nuclear umbrella of any country. Secondly, India is far advanced in nuclear

research, and, third, it is under the continuing threat and menace of China, which has already become a nuclear power."[3]

What sort of threat was posed by a nuclear China, and what was the value of the nuclear umbrella against "Chinese nuclear threat", if provided by a superpower?. The Indian attitude towards these questions was well articulated by the then Vice-President of Indian Institute of Political and Social Studies, when he wrote in the "Indian Quarterly" in 1964:

> "...the naval, air, and nuclear power of the USA is by itself no answer to subversion or guerilla warfare; no answer to an infantry push by Chinese: no answer to a limited use of tactical nuclear weapons by the Chinese artillery; no answer to the scare raids, and no answer to the blackmail... but these are the contingencies which the Chinese are likely to create in the near future. They will not create contingencies in which US power is a relative deterrent."

It appears that a policy decision to demonstrate and develop a limited nuclear capability was taken around the time when the Peoples Republic of China (PRC) exploded its thermonuclear weapon. The Chinese tone had not mellowed by then, and a thermonuclear explosion

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3. Patil, R.L.M. *India Nuclear Weapons and International Politics*, National Publishing House, N.D.

of the PRC could have provided all the fire to the argumentations of those who stood for India's Bomb. It is meaningful that the government reaction to the PRC's explosion of H-Bomb was conveyed to the Lok Sabha by the Defence Minister and not by the Foreign Minister or anybody from that ministry. Perhaps the objective was to make it known that PRC's nuclear capability is no more perceived as a long term political threat by India, and instead the ministry of defence would take care of the problem. At this stage, perhaps, the go-ahead was given for "Purnima", the fast research reactor which provided data to Indian scientists for the 1974 explosions.

Sardar Swaran Singh, the then Defence Minister of India, made a statement regarding thermo-nuclear explosions of the Peoples Republic of China in Lok Sabha on 21st June 1967, on behalf of the then Foreign Minister Mr. M.C. Chagla;

"On the 17th June 1967, China announced the explosion of its first hydrogen bomb. This was the sixth nuclear explosion by China in defiance of world public opinion. This latest explosion of hydrogen bomb is further evidence of China's callous indifference to the opinion of the rest of the world. The Government of India views this development with grave concern.

The nuclear policy of China and its impact on our security has been under study by our concerned authorities from time to time

and it will continue to engage our most careful attention. I would like to assure the House that all practicable ways and means of ensuring our security are constantly under examination. We have steadfastly adhered to the policy of developing nuclear energy for peaceful purposes. The effect of this policy on our society is also kept under constant review.[4]

In the aftermath of the first Chinese nuclear explosion, options for the Lal Bahadur Shastri government were limited to either address the issue of nuclearisation in the neighborhood, or to persist with global disarmament and continue to remain 'non-nuclear' or to seek international guarantees. Shastri decided to seek external deterrence from Britain. He made request for such a deterrence to the British Prime Minister, Harold Wilson, during his visit to London in December 1964, but there was no favorable response from the British government.

As was natural, an important section of the enlightened Indian opinion began demanding nuclear weaponization of India. As the debate sharpened, and as even the younger members of the ruling congress party at Durgapur session in 1965 put pressure on the prime minister to give up the policy of 'nuclear abstinence', Shastri made only slight modification in his opposition to nuclear weapons. He said that India would not embark on the nuclear programme 'now'. This implied that

4. Ibid.

there was possibility of the govt. changing it policy in future. Meanwhile, Shastri sanctioned the proposal put forward by Dr. Homi Bhabha for investigating a subterranean Nuclear Explosion project (SNEP). This sanction was kept a secret at that time. Thus was planted the seed for Pokhran-1 of 1974. However, India didn't give up its effort for disarmament and arms control.

In 1965, along with a small group of non-aligned countries, India moved Resolution No. 2028 in the UN General Assembly. It sought an international non-proliferation agreement under which the nuclear weapon states would agree to give up their weapon provided other countries refrained from developing or acquiring such weapons. The intention of India was to ensure that there was reciprocity of obligations between nuclear weapon states (NWS) and the small group of non-aligned countries. This balance of rights and obligations was absent when the NPT emerged in 1968. Meanwhile, Prime Minister Lal Bahadur Shastri had died in January 1966 at Tashkent soon after signing an agreement for the normalization of relations after the India-Pakistan war of 1965. Mrs. Indira Gandhi Succeeded Shastri. During this period Dr. Vikram Sarabhai was the chairman of the Atomic Energy commission. Dr. Sarabhai, the new chairman of the Atomic Energy commission, was known to be very enthusiastic about India exercising its nuclear option. He was of the opinion that Even if India carried out a test or two, that would not make India a nuclear weapons power.

When the non-proliferation treaty was discussed in the Indian parliament in 1968, Mrs. Gandhi said India shall be guided entirely by the consideration of her national security. The Prime Minister pointed out the shortcomings and the discriminatory nature of the NPT. She warned the Lok Sabha and the country that by not signing the treaty the country may have to face many difficulties. It may mean the stoppage of aid and stoppage of help. Parliament endorsed the government's decision not to sign the discriminatory NPT.

India conducted its first nuclear test on 18 May 1974 at Pokhran in Rajasthan. Why did India decide to conduct the test, which was described as peaceful nuclear explosion (PNE)? It will not be difficult to answer this 'why' if we will do an in-depth analysis of the then prevailing security scenario around India. Mrs. Gandhi faced the challenge of expanded nuclear weapons deployment around India and the progressive nuclear weaponization of china and Pakistan. Both the United States and the Soviet Union had forces armed with nuclear weapons deployed in the Indian ocean and the Asia-pacific region, from Hawaii to Diego Garcia. The chinese had moved on from their conventional weapons capacities to thermonuclear weapons capacities with matching acquisition of delivery systems. Equally significantly, Pakistan had commenced its clandestine nuclear weaponisation programme immediately after its military defeat by India in 1971. Keeping in mind the security threats being faced by India at the

strategic level, Mrs. Gandhi authorized the conducting of an underground nuclear test which could justly be described as a dual purpose experiment. The explosion of the nuclear device would constitute an experimental basis for a nuclear weaponisation programme, at the same time servicing the purpose of a technology demonstration experiment for the peaceful uses of atomic energy.

At that stage, China had not signed the NPT. Both China and France, defying the international norm, were conducting atmospheric nuclear tests, which were prohibited under the partial test ban treaty. Subrahmanyam says: 'India had at that stage the Canada-India reactor and the plutonium reprocessing plant at trombay in operation. A stockpile of weapon grade plutonium was being built. Using this plutonium, the Bhabha Atomic Research Centre (BARC) had designed the purnima reactor and operation of this reactor enabled the scientists to gather all data necessary to design a nuclear device.... At that stage, both the US and the USSR were conducting a large number of Experiments in peaceful nuclear explosions which were intended to be applied to civil engineering purposes....The Indian scientists had presented papers in international conferences on application of peaceful explosion. It was accepted all over the world and the Indian scientific establishment did not dispute it-that the technology for peaceful explosions and weapons was the same. Since there was a commitment that Canada-India reactor would not be used for purposes

other than peaceful, it appears to have been decided to go in for a peaceful explosion on the lines of those conducted by the US and the USSR.[5]

Mrs. Gandhi gave green signal to the scientists to conduct the underground peaceful nuclear explosion. By that time China had been given representation in the UN; Pakistan had been defeated by India and Bangladesh had emerged as a sovereign nation and the Shimla agreement had also been concluded. At this point the 'Enterprise' episode during the Indo-Pak war of 1971 needs our attention. The 'Enterprise' was nuclear weapon-Equipped US Naval ship which was sent into the Bay of Bengal in December 1971 during Indo-Pak war, to terrorise India. Dr. Henry Kissinger has described in his book 'white House years', how he tried to pressurize the chinese to intervene against India and chinese refused to do so fearing soviet reaction which had come into a Treaty (Indo-Soviet treaty of peace, Friendship, and cooperation signed in August 1971) with India. But as mentioned above, the US did send its Task Force 74 (seventh fleet) headed by the nuclear aircraft carrier, the USS Enterprise. K. Subrahmanyam has recalled: 'Now we know that there was no specific operational directions to the Enterprise mission. But at that stage, the Indian Govt. could not but assume the worst and treat it as an act of nuclear intimidation. We also

5. K. Subrahmanyam, '*Indian Nuclear Policy-1964-98*' (a Personal recollection) in Jasjit Singh, ed. clear India, Knowledge World in Association with IDSA, New Delhi, 1998, p. 29-30.

know now what president Nixon disclosed subsequently, that he did contemplate the use of nuclear weapons at that stage. There are various accounts of the soviet deterrent reaction to the Enterprise Mission. A soviet task force followed the Enterprise Forces.'[6]

Fortunately, the US-China intervention did not take place, and the Soviet Union did not have to use its available deterrent in favour of India. But this experience of nuclear intimidation must have influenced Mrs. Gandhi in giving the green signal to the Atomic Energy Department to go ahead with the nuclear test in 1972. Meanwwhile, Zulfikar Ali Bhutto, the then Pakistani PM had sought chinese assistance in developing his Islamic Bomb, and Make Pakistan a Nuclear weapon state as fast as possible. It can be argued that India was seriously considering of energizing its nuclear test even before Pakistan's defeat in 1971. But once it became clear in 1972 that Pakistan was anxious to go ahead with a Nuclear Explosion, India conducted its nuclear tests after about one and half years on 18 May 1974.

The PNE of 1974 was bitterly criticized by the western countries. Adverse international reactions were not unanticipated. Having confirmed her Nuclear capability and its potentialities, India decided to follow a policy of calibrated restraint, so much so that she did not

6. Ibid, p. 31.

conduct any further Nuclear tests for the next 24 years. several prominent personalities in various fields strongly felt that India should not have postponed the exercise of Nuclear option for so long. Former foreign secretary, J.N Dixit expressed these sentiments in these words: 'it is my considered assessment that our not following up the nuclear test of 1974 in a transparent manners to become a nuclear weapons state was again an opportunity lost to safeguard India's position in strategic global power equations. Our reticence in this regard has impacted negatively on bilateral relations which could have developed on more equitable lines with china, the US and the soviet union'[7]

Meanwhile, in Post- Pokhran-1 period, multilateral technical discussions on safeguards and transfer of technology policies changed the definition of no-proliferation. Initially non-proliferation was aimed only at preventing acquisition and proliferation of nuclear weapons. But as if to punish India, the 'definition of proliferation was entered to cover all related technologies. So were the objectives of safeguards changed to monitor and supervise nuclear and space technologies being used for peaceful purpose... Full-scope safeguards were also going to be discriminatory, as these were also going to be discriminatory, as these

[7] J.N Dixit, *Across Borders*, Picus, New Delhi, pp. 287-88.

were applicable to the facilities and laboratories of the nuclear weapons states[8]'.

India, therefore consistently opposed these decisions. In fact, the primary target of the provision of the Nuclear Regulatory Act, enacted by the US in 1978, was to control and diminish India's nuclear technologies and defence capacities.

Moraji Desai, who was Prime Minister during 1977-79 period was totally opposed to nuclear weapons for India, even for civilian purpose. But, one thing that he hated more than even the nuclear weapons was India being dictated to by the nuclear weapon powers. He resisted all the pressure put on him by the US president Carter, during his visit to India in January 1978 to sign the NPT.

Till 1978, India had supported the idea of nuclear weapons-free zones in various parts of the world, yet India opposed a resolution on a nuclear– free zone for south Asia. India was aware of the fact that the regional and sub-regional free – zone agreement had an adverse effect on important countries like Brazil and Argentina (Treaty of Tlateolco). India, according to J.N Dixit, was: 'Convinced that regional and sub-regional free-zones being established was irrelevant on terms of the objectives of non-proliferation especially when the nuclear weapons

[8] Ibid., p. 421

had a global reach and more so where most of the regions had at least one nuclear weapons power within the region itself'.[9]

A suggestion made by K. Subrahmanyam and accepted by Moraji Desai was included by him in his address to the UN special session on Disarmament in June 1978. Accordingly, Desai argued that the nuclear weapon – Free Zone did not provide security to the non-nuclear weapon nations so long as the nuclear weapon states continued to possess their weapons. An international Seminar held in Delhi just before the special session of the UN general assembly, recommended that India should move a resolution to the effect that use and treat of use of nuclear weapons were crimes against humanity and they ought to be prohibited pending nuclear disarmament. India moved such a resolution, and has done it Several times after that also.

For the first time in november 1979, the then Defence Minister, C. Subramaniam made out a case for India going nuclear. By 1980, when Mrs. Gandhi came back as the Prime Minister, it had been confirmed from several sources that Pakistan was, indeed, developing a nuclear bomb with clandestine Chinese assistance.

Mrs. Gandhi took the Pakistani threat more seriously than Moraji Desai. She authorized Dr. Ramanna to go ahead with preparation for

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[9] Ibid. p.422.

an underground test. The US satellites discovered the preparations and Mrs. Gandhi came under US pressure not to conduct the test.

When Rajiv Gandhi took over as the Prime Minister of India he was not very enthusiastic about India enercising its nuclear option. Rather he was more Concerned about Pakistani Nuclear weapons Programme. Rajiv Gandhi appeared to be sending signals to the world that India had no intentions of acquiring nuclear weapons. In December 1985, Rajiv Gandhi and Pakistani President Zia-ul-Haq agreed not to attack each other's nuclear installations. This was done to set at rest western Media rumours that India was planning an attack on Pakistani installations at Kahuta, Just as Israel had attacked Osirak reactor in Iraq.

Pakistan's nuclear, programme has a symbiotic relationship with Indian nuclear programme. Pakistan has always claimed that it developed a nuclear weapon capability in response to a Security threat from India. More specifically, it traces the genesis of its Nuclear program to the 1974 Pokhran nuclear test. Between 1974 and 1998 Pakistan's twofold strategy was to develop a credible nuclear deterrence against India and to fight international pressures against its programme.

In the 1950s Pakistan became apprehensive of Indian nuclear acquisitions. The first Indian Prime Minister, Jawaharlal Nehru stated

of India's nuclear policy: "Indian scientists will use atomic force for Constructive purposes. However, if India is threatened, she will inevitably try to defend herself by all means at her disposal"[10] Such statements induced Pakistan to monitor the India nuclear program. After the 1962 Sino-Indian war, when India started developing its nuclear weapons programme in earnest, Pakistan initiated a process of espionage and clandestine acquisition of nuclear technology and design. With the 1971 Indo-Pakistani war and subsequent nuclear explosion by India in 1974, Pakistan pursued nuclear weapons in a more serious and organized manner.

Pakistan launched its nuclear programme long back when former President Zulfikar Ali Bhutto announced his plan to develop atomic weapons at a secret meeting of scientists and civil and military officials in Pakistan's Southern city of Multan in 1972, Just months after the country had suffered a humiliating defeat in its war with India. Pakistan's decision to acquire a nuclear device were driven both by fears of Indian domination and a desire for prominence in Islamic world. India's nuclear test explosion in May 1974 gave further impetus to Pakistani plan for nuclearization. India's demonstration of its nuclear Capability reinforced a sense of insecurity in a defeated nation. The two countries had fought there wars since their independence in 1947 and

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10 Jawahar Lal Nehru *The Unity of India: Collected Writings* (London: Lindsay Drumond1976, pp. 353-354).

the military Superiority of India was fully illustrated in the 1971 war. Against this backdrop Pakistan's Nuclear program appeared to counter India's substantial conventional superiority and its newly acquired nuclear capability.

Even before these developments the then foreign minister zulfikar Ali Bhutto declared in 1966 that if India made a nuclear bomb Pakistan would follow suite 'even if Pakistanis have to eat grass, we will make the bomb'[11], Mr. Bhutto asserted in an often quoted statement. Bhutto had urged consideration of a military nuclear program while minister for fuel, power, and natural resources is the 1960s, but the priorities of the government of President and Field marshal Ayub Khan focused on the resumption of Pakistan's special security relationship with the United States, and the desire to regain preferential access to western conventional arms, which had been disrupted by the imposition of a US embargo on military assistance and sales to Pakistan during the 1965 war.

Bhutto's assumption of the presidency and the dismemberment of Pakistan in the 1971 war drove home the realization of Pakistan's military vulnerability, transforming Pakistan's nuclear program which had hitherto focussed on civilian energy production, into one with a

11. Quoted in Zafar Iqbal Cheema, "*Pakistan's Nuclear Polices: Attitudes and Postures*" in Nuclear non-proliferation in India and Pakistan: South Asian Perpectives, edited by P.R Chari, Pevaiz Iqbal cheema and iftekharuzzaman, (New Delhi: Manohar, 1996) p.10

substantial military component. The 1973 oil crisis played a role in the evolution of Pakistan's nuclear program as well. The crisis not only caused a quadrupling of oil priced, but led to the realization that alternative means of energy were imperative for the country's security. According to Tahir Kheli, the 1973 Crisis also changed US perceptions of the role of Pakistan. "The US began to subscribe to an apocalyptic vision of the world held hostage by a number of newly important but unstable countries that might even become armed with nuclear weapons, if not developed indigenously then acquired through surrogates. Since the majority in the above category lacked the necessary infrastructure to build a credible nuclear programme, Pakistan was seen by Washington as the missing link in the chain for the acquisition of nuclear weapons of these countries'[12] Bhutto was clever enough to use this changed perception of the US to Pakistan's gains.

When the Indian nuclear test occurred in 1974, momentum was already building for a more active military nuclear program. President Bhutto seized the opportunity presented by India to press ahead with the weapons Programme. Security concerns were the primary but not the sole factor in Pakistan's decision to develop nuclear weapons. Bhutto's vision of an "Islamic Bomb" also pushed Islamabad's Nuclear

[12] Shirin Tahir-Kheli, *The United States and Pakistan: The Evolution of an Influence Relationship*, New York Praeger, 1982, p. 119.

ambitions. "we know that Israel and South Africa have full Nuclear capability. The Christian, Jewish, and Hindu Civilizations have this capacity. The Islamic civilization was without it but that situation was about to change" wrote Mr. Bhutto from his prison cell in 1978 prior to his execution[13]. The Pakistani leader believed that nuclear capability would provide Pakistan a leading role in the Islamic world.

Although initially invoked by Bhutto, the Islamic Bomb" concept has little or no relevance to current Pakistani policy and thinking on nuclear issue. The Kroc institute poll found no support among educated elites for the idea of Pakistan using its nuclear capability as a means of defending Islamic civilization. When nuclear advocates were asked why Pakistan should develop nuclear weapons, none of the 290 respondents cited protecting the Islamic world as a reason. Initially Pakistan intended to pursue both the plutonium and uranium enrichment routes to nuclear capability.

Mr. Bhutto in 1974 reached an agreement with France for the supply of a reprocessing plant for extracting plutonium from the spent fuel of a power reactor. But Pakistan's bid to acquire a reprocessing plant, which seemed unnecessary for its small civil nuclear program alarmed the international community. Although the reprocessing facility was supposed to be placed under international Atomic Energy

13. Zulfikar Ali Bhutto, *If I Am Assassinated* (New Delhi, Vikas, 1979), pp. 137-38.

safeguards, the plant would have allowed Pakistan to accumulate plutonium which it did not need for its one small natural uranium fueled reactor, but which could be of obvious use for a weapons programme.

Pakistan's move to acquire a nuclear reprocessing plant evoked serious concern within the US administration. In 1976 Secretary of state Henry kissinger was dispatched to Islamabad and later to paris in a bid to halt the reprocessing deal. The US congress also adopted the legislation to prevent the spread of nuclear weapons capability. In 1976 congress adopted the Gelenn-symington amendment as part of the International Security assistance and arms export Control Act. The amendment prohibited economic and military assistance to any country transferring nuclear materials, experiments, or technology. Aid could continue inspite of nuclear trade if the president certified that suspending assistance would adversely affect the interest of the US and that the country in question was not developing nuclear weapons. Congress also passed the nuclear non-proliferation Act in 1978. This act limited the authority of the Department of Energy to make peaceful nuclear exports by requiring each exports to be licensed by the nuclear regulatory commission and approved by the state department. Aid to Pakistan was cut off in 1977 at the initiative of the White House rather than through the Glenn–Symington amendment as part of the Carter-administration's more aggressive stance against nuclear proliferation. In

August 1977 France acceded to growing non-proliferation pressures and agreed to suspend the delivery of the nuclear reprocessing plant to Pakistan. Bhutto later acknowledged the importance of the reprocessing plant in Pakistan's endeavor to develop nuclear weapons. "Pakistan was on the threshold of full nuclear capability. All we needed was the nuclear reprocessing plant[14]", he declared.

The overthrow of Mr. Bhutto in July 1977 and his subsequent execution by the military regime of General Zia-ul-Haq did not affect Pakistan's nuclear programme. General Zia's military Junta continued the weapons project despite France's refusal to provide the nuclear reprocessing plant, largely through pursuit of the uranium enrichment path to nuclear weapons. As early as 1975, Pakistan began clandestinely to acquire hardware and technology for ultra high speed centrifuges[15]. Through smuggling and black market channels, Pakistan obtained the hardware for building an enrichment plant in Kahuta near Rawalpindi. Pakistan reportedly built an elaborate secret network in the west for procuring uranium centrifuge and enrichment information. Most of the equipment was acquired from western European Countries. Dr. Abdual Qadeer Khan, a German trained metallurgist who had worked at a Dutch engineering firm (whose parent company operated a centrifuge enrichments plant at Almdo the Netherlands), was the key

14 Bhutto, *If I am Assassinated*, op cit., p-138.

figure in developing the Kahuta project. Dr. Khan settled down in Pakistan in 1976 to direct the Kahuta project. The plant was separated from the Pakistani Atomic Energy Commission and placed under direct military command. The Kahuta plant began operation in the 1980's but it faced serious difficulties in the initial period and couldn't make significant progress towards enrichments. However, Pakistan could get the Chinese technical assistance.

The profound geopolitical changes that swept the region in the late 1970s, following the communist revolution and Soviet Military invasion in neighboring Afghanistan, made Pakistan a crucial frontline state for the west. Alarmed by the Soviet invasion and eager to obtain Pakistani cooperation in mobilizing resistance to perceived soviet expansionism, the United State lifted its ban on economic and military assistance to Pakistan and exempted the country from the nonproliferation provisions of the US law. By the 1980s Pakistan became one of the largest recipients of US military and economic assistance. From 1982 to 1990 Washington provided Islamabad $5.4 billion in mostly military aid.[16] After the Soviet invasion of Afghanistan, Washington needed Islamabad more than Pakistan needed the US. The Reagan administration decided to shut its eyes to Pakistan's nuclear program, which had earlier caused serious strains in Pakistan-U.S.

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15 Leonard S. Spector, *The spread of nuclear weapons 1986-1987: Going Nuclear*, For Carnegie Endowment for International Peace (Cambridge, mass: Ballingers 1987), p. 103.

relations. General Zia fully exploited Pakistan's emerging geostrategic importance to the West and accelerated the country's nuclear program and there is strong evidence to suggest that by the end of 1984, Pakistan had, through indigenous efforts, crossed the "red line" in uranium enrichment to more than 5 percent U235. That was the period when Pakistan feared an imminent attack from Mrs. Indira Gandhi's government in India. The threat of war led to an acceleration in Pakistan's nuclear program[17].

In the interview in February 1984 for Nawa-I-Waqt, a national Urdu Language daily, Dr. Khan declared that Pakistan Was on the verge of achieving nuclear capability[18].This was the first time that the head of Pakistan's nuclear program spoke publicly about the country's nuclear status. General Zia subsequently confirmed Dr. Khan's part of Statement, but emphasized that Pakistan had only produced low-enriched, non-weapons grade materials. [19]

Since Pakistani policymakers were, however, well aware of the dangers of flouting Pakistan's nuclear capability, the official nuclear policy continued to rest on two platforms – the acquisition of a nuclear weapons capability, shrouded, under the cover of ambiguity, and

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16 *Congressional Quarterly*, 16 1992, p.1352.

17 Zahid Hussain, *The Bomb Controversy*, Newsline (Nov.1991) p.25.

18 Nawa – I- Waqt, 10 Feb – 1984 Cited in Leoanrd S Spector and Jacqueline R. Smith, *The Spread of Nuclear weapons. 1989-90: Nuclear Ambition*, for the carnegie endowment for international peace boulder 1010, west press, 1990 / 92

ostensible support for non proliferation. In accordance with these policy guidelines, Pakistani policymakers continued to strengthen and expand Pakistan's nuclear infrastructure.

Pakistan's progress in the nuclear field had alarmed officials in Washington. The US congress passed the Pressler amendment in 1985, requiring sanctions against Pakistan unless the president certified the Islamabad was not developing nuclear weapons. The Reagon administration warned Islamabad of "grave consequences" if it crossed the 5 percent enrichment threshold. General Zia's regime assured Washington that Pakistan would not cross the "red line", but evidence indicates that Pakistan in fact continued to develop its program.

In their book, 'The spread of Nuclear Weapons 1989-90: Nuclear Ambitions', Leonard Spector and Jacqueline Smith identify 1985 as a watershed in Pakistan's nuclear program. That was the year when Pakistan developed weapons grade uranium enrichments capability. Spector and smith assert that President Reagan was aware of this development but chose not to challenge Pakistani leaders on the issue. The administration invoked the waiver provision of the Pressler amendment by annually certifying, contrary to accumulating evidence, that Pakistan was not developing nuclear weapons. "Thus the United

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[19] Leornard S Spector, *The Spread of Nuclear Weapons*, 1985, The New Nuclear Nations for the Carnegie Endowment for International Peace (New York, Vintage Books 1985), 118.

State acquiesced in Pakistan's decision to move towards production of weapons-grade uranium" write Spector and smith[20].

US intelligence concluded in 1986 that Kahuta had acquired nominal capability sufficient to produce enough weapons-grade materials to build several nuclear bombs per year[21]. During this time Pakistan began constructing a second uranium enrichment progamme near Golra. In March 1988 a report published in the New York Times quoted Senior US government sources as stating that Pakistan had accumulated enough highly enriched uranium for four to six nuclear weapons. It also said that Pakistan's weapons was based on a Chinese design and was more advanced than the first US nuclear device[22]. Nonetheless, President Reagan Continued to certify that Pakistan did not process nuclear weapons capability, thereby allowing the continuation of US aid. Confirmation of Pakistan's nuclear developments was provided a few years later by Pakistan's former chief of army staff, General Mirza Aslam Beg, who said in 1994 interview: "By 1987, before my appointment as vice chief of army staff, Pakistan had acquired full nuclear capability". [23]

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[20] Spector and smith, *Nuclear Ambitions*, op.cit.p.94.

[21] David Albright "*India and Pakistan's nuclear arms race: Out of The Closet But not in the Street*, Arms control today 23, No 5 line 1993, p.15.

[22] Learnard S spector, *The spread of nuclear weapons 1987/88: The undeclared Bomb*, For the carnegie endowment for international peace [Cambridge mass, Ballinger publishing company, 1988, 142-143].

[23] Zahid Hussain "*Whod Unit*" Newsline [April 1994, p.3.].

In March 1987, Dr. A.Q.Khan gave a controversial interview to the Indian Journalist Kuldip Nayyar in which he boasted that the CIA's claim that Pakistan possessed the nuclear bomb was correct. The interview was simultaneously published in the London observer and in Indian newspaper. Dr. Khan later retracted the statement, further entrenching the policy of nuclear ambiguity.Meanwhile in an interview with Time magazine in March 1987, General Zia repeated Dr. Khan's claim: "Pakistan has the capability of building the bomb....whenever it wishes"[24]

Both General Zia and Dr. Khan in their statements maintained a deliberate ambiguity about the Country's actual nuclear weapons status. Nevertheless it was quite evident that Pakistan had made significant progress in its weapons programme. This was the period when relations between India and Pakistan Sunk to a very low ebb. Operation Brasstacks, a major India military exercise near the Pakistani border, resulted in massive troop mobilizations in both countries, as the threat of yet another war loomed large over the south Asian subcontinent.

The interviews of General Zia and Dr. khan in 1987, like the earlier claim by Dr. khan in February 1984, appear to have been deliberate efforts to threaten India with the Specter of nuclear war, to

[24] William R Doerner "*Knocking at the Nuclear Door*", Time, 30 march, 1987, p.42.

use Pakistan's emerging nuclear weapons capability as a deterrent against possible Indian military aggression. Although the nuclear program remains shrouded in ambiguity, it is made real as instruments of declaratory policy. Pakistan's nuclear weapons potential has thus become a stick that is used to threaten India during times of military crisis. As noted, earlier, Pakistani leaders believe that this policy has been successful in deterring Indian military ambition.

The death of General Zia ul-Haq in August 1988 and Pakistan's subsequent return to democracy did not bring significant change in the country's nuclear weapons program. Pakistan had acquired the status of a de-facto nuclear state by the time a civilian government was installed. Under the new civilian administration, Pakistan's nuclear program continued to be run by the military and the president. Prime Minister Benazir Bhutto, the daughter to ZulfiKar Ali Bhutto, was kept out of the decision making process. During her state visit to Washington in 1989, Prime Minister Bhutto assured the US Congress that Pakistan neither possessed a nuclear weapons nor intend to build one. Bhutto was reportedly shocked when she was told by US intelligence officials during her visit about the actual status of Pakistan's nuclear program[25]. That the highest elected official had no

[25] Christopher smith, *The Topography of conflict: Internal and External security issues in South Asia in 1993*, (London, Brasseys, 1993) pp 300-301

control or even knowledge of the nuclear weapons program tells us the state of civil-military relations and Pakistan's democracy.

In 1989 President George Bush Warned Pakistan that its nuclear program should not advance beyond its existing level. In response Pakistan capped its uranium enrichments.

Pakistan accelerated its nuclear program once again in 1990, however, as tensions between India and Pakistan mounted over Kashmir. Prime Minster Benazir Bhutto lost what little influence she had over Pakistan's nuclear program during that period. Later after her ouster from power Benazir Bhutto maintained in an interview with the ABC television network that she was kept in the dark about the country's nuclear program[26]. Bhutto's statements clearly indicates that pakistan's nuclear programme is not controlled by the elected Prime Minster but operates automatically under the military and, until recently, the President. According to some reports no prime minister has ever been allowed to visit the nuclear facility in Kahuta.[27] The most important questions about the decision making process on the development and the control of nuclear weapons are apparently beyond the reach of the elected government.

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[26] Hussain "*The Bomb Controversy*" op. cit; p.26

[27] George Perkovich "*A nuclear Third way in South Asia*" Foreign policy no .91 (summer 1993) p.90.

Following the ouster of Benazir Bhutto's government through an army backed constitutional coup, Washington stopped all economic and military aid to Pakistan in August 1990, as President George Bush invoked the Pressler amendment by refusing to certify that Islamabad did not posses nuclear weapons. The U.S Decision to impose sanctions on Pakistan came after the withdrawal of soviet system in eastern Europe. Washington's action was largely due to the changed geo-political situations. Pakistan had achieved nuclear weapons capability at least two years earlier, but Washington had ignored these developments because Islamabad was an important linchpin in the West's fight against communism. When this threat disappeared, Pakistan's help was no longer needed and sanctions were imposed.

The stopping of American aid did not deter Pakistan from continuing its nuclear weapons program. President Gulam Ishaq Khan, a stalwart supporter of the nuclear program, resisted American pressure. Across the political spectrum, political leadership were unanimous in rejecting US pressure to abandon the nuclear program.

The Gulf War generated greater support within the military establishment of Pakistan to shed its ambiguity and go for a nuclear test. Army chief General Beg was the major advocate of a overt nuclear policy, urging that Pakistan develop a viable nuclear option as part of its defense strategy. The early end of Gulf War and the victory of US led

allied forces, however, created a sharp division in Pakistani establishments. Prime Minster Nawaz Sharif adopted a moderate position on the nuclear issue. The enrichment program was again capped. Sharif's soft-pedaling of the nuclear issue was clearly indicated in an interview with. 'New York times' correspondent Barbara Crossette in june 1991, when Nawaz Sharif declared that he wanted to take a more flexible position but was constrained by certain factors, by which he mean the hard-line faction in the military[28]. That same week Sharif proposed a conference of five nations to discuss an agreement on south asian regional nonproliferation. He faced strong resistance from the army chief and other genrals, however. In a latter to Nawaz Sharif in July 1991, General Beg Warned him of the army's concern and urged him to take a clear and firm line on the issue[29]. General Beg's retirement in August 1991 not only brought relief to the Sharif government but also a positive response in Washington. Following General Beg's departure, a thaw developed in relations between the united states and Pakistan. The fundamental situations did not change much, however as Islamabad firmly refused to accept Washington's demand for rolling back its nuclear weapons program.

Notwithstanding his flexibility, Nawaz Sharif remained under intense pressure to make public Pakistan's nuclear positions. Perhaps

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[28] Barbara Crossete "*Pakistan Asks talks on Atomic Spread*" New York Times, 7 June 1991, A3.
[29] Ibid.

because of this pressure, the prime minister instructed his foreign secretary Saharyar khan, to declare Pakistan's nuclear status while on a visit to the US. Mr. Khan's statement in the 'Washington Post' in early 1992 was the first time that the Pakistan government officially unveilded its nuclear weapons position. As noted earlier, such statements are not only declarations of military capability but diplomatic gestures intended to send a message to other states. In this case the intended recipient of the message was not only India but the US as well. Pakistan firmly signaled its determination to maintain and press ahead with its nuclear program, notwithstanding US pressures. The declaration had the added political purpose of shoring up Nawaz Sharif's nationalist and Patriotic credentials at home, and diverting attention from mounting criticisms over his government's inability to address Pakistan's pressing social and economic problems.

In the evolution of both India's and Pakistan's nuclear policy the year 1995 was very important. This was the year when NPT was extended indefinitely and unconditionally, perpetuating the existence of nuclear weapons in the hands of the five countries, who were also permanent members (P-5) of the security council. Some of these countries have doctrines that permits the first use of nuclear weapons. While these countries are engaged in programmes for modernization of their nuclear arsenals the renewed NPT prohibited proliferation of nuclear weapons beyond the P-5. India had decided to keep its nuclear

option open in view of the discriminatory nature of the Non-Proliferation regime. India had therefore, not signed the NPT, nor did she agree to the CTBT in 1996.

What were the circumstances in which India finally opted to conduct its nuclear tests in May 1998, and declare itself to be a nuclear weapons state. The government's decision to conduct pokhran tests in may 1998 had not only become inevitable, they were in fact in continuation of the policies set in motion almost from the earliest years of independence. India was left with no option but to go in for overt nuclear weaponisation .The sino – Pakistan nuclear collaboration continued in violation of the NPT and it was obvious that the NPT regime in India's neighborhood had collapsed. China was assisting Pakistan in setting up a plutonium production reactor at Khushab. As J.N Dixit writes "deteriorating regional security environment compelled India to move from ambiguity to definiteness, from potentialities to operational realization, in the sphere of nuclear and missile weaponsiation[30]

Narasimha Rao Government was quite close to conducting a nuclear test towards the end of 1995. But various external and domestic pressures inhibited him. As ex-foreign minister Jaswant singh put it:

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[30] J.N Dixit, op cit. P. 427.

> "...It is reasonable to conclude that Narasimha Rao, when he was Prime Minster, had also ordered nuclear tests in 1995. Satellite imaging and some even suggest human intelligence from India, revealed the plans to the US Govt. which then was made public, and the premier backed off"[31]

Indian nuclear tests in May 1998 had become inevitable and they were triggered by the Ghauri missile test by Pakistan.

Thus India's nuclear policy has not developed in a vacuum. It was essentially a graduated and measured response to international non-proliferation trends which India perceived as a threat to its long term security interests.

Pakistan's nuclear program has a symbiotic relations with Indian nuclear policy. Pakistan's assertion is that it has developed a nuclear capability in response to a security threat from India. So when India tested its nuclear weapon of May 11th and 13th 1998 Pakistan was forced to exercise its option of a minimum nuclear deterrent. Pakistan was left with no choice but to respond to the Indian tests so as to restore the 'regional strategic balance'

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[31] Jaswant Singh, *Defending India*, op.cit., p.325.

On the basis of the above account we can say that the Indian nuclear policy has been guided by broader geo-political and strategic compulsions, whereas the Pakistani nuclear weapons program has been up to a great extent Indo – centric. Pakistani nuclear policy makers are convinced that the Indian nuclear program is a Security threat to Pakistan and can only be countered by developing an 'effective nuclear deterrent' against it.

CHAPTER III

THE POKHRAN AND CHAGAI TESTS

Ever Since India developed its nuclear capability, and conducted test at Pokhran on 18 May 1974, it was repeatedly emphasized that although India did not wish to make a bomb, and that it supported complete nuclear disarmament, it would keep its nuclear option open. By doing this India was sending message that it was in favour of the elimination of all nuclear weapons and if its security was threatened it would not hesitate to exercise the nuclear option. India neither closed nor exercised the nuclear option for twenty-four years, making its policy look like ambiguous.

'For almost exactly twenty four years, the military aspects of India's nuclear policy and programme remained shrouded in a veil of ambiguity and opaqueness. There had been little reliable information available about the exact state of India's nuclear programme since 18 May 1974, the day India had conducted its first nuclear test and termed it as a peaceful nuclear explosion. On 11 may 1998, the veil was finally lifted.'[1]

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1. Amitabh Mattoo: '*India's Nuclear Policy in an Anarchic World*' in mattoo, ed. India's Nuclear deterrent, Har-Anand, New Delhi ,1998, p.9.

The day India exercised its nuclear option has been described as a defining moment in India's history and evolution. It marked a watershed in independent India's defence and foreign policy.

'On May 11, 1998 the world, and 970 million Indians sat up to take note of India's nuclear status when the nation successfully tested three nuclear devices. The decision to finally shake off a quarter of a century old self imposed restraint on exercising the nuclear option was indeed a momentous one...'[2]

After conducting three underground tests at Pokhran test site on 11 May 1998 (the Buddha - Purnima day, as was 18 May 1974) at 3:45 p.m., the Government of India was candid in its statement. It was officially declared 'the people of India have a very credible nuclear deterrent.' About three hours after the successful explosion of three nuclear devices on 11 May 1998, the prime minister, Mr. Atal Behari Vajpayee conveyed the news to the country and the world. The prime minister told the media:

"Today at 15.45 hours India conducted three underground nuclear tests in the Pokhran range. The tests conducted were with a fission device, a low yield device, and a thermonuclear device. The measured yields are in line with expected values. Measurements have

2. Jasjit Singh, *Nuclear India*, Knowledge World in association with IDSA, New Delhi, 1998, p. 8.

also confirmed that there was no release of radio-activity into the atmosphere. These were contained explosions like the experiment conducted in may 1974. I warmly congratulate scientists and engineers who have carried out these successful tests.'

The Prime Minister's principal secretary Brajesh Mishra, explained later the same day: 'these tests have established that India has a proven capability for a weaponized nuclear programme. They also provide a valuable database which is useful in the design of nuclear weapons of different yields for different delivery systems.'[3] India conducted two more tests on 13 May1998. The five tests were conducted in what was called "Shakti Series." Soon after the tests held on 13 May, the government declared a halt to the series. This meant unilateral moratorium on further tests. India had not signed the discriminatory non-proliferation treaty, which recognized only five countries as nuclear weapon states (NWS). There were five permanent members of the security council who all had become nuclear weapon states before 1 January 1968. India had also not signed the discriminatory CTBT which was adopted by the UN General Assembly and opened for signature is September 1996. Thus, conducting the nuclear tests by India was not violative of any of its international commitments.

3. *The Hindu*, 12 May 1998.

The BJP and its allies released an Agenda for Governance on the eve of Vajpayee Government's assumption of office in March 1998. It was stated in the Agenda that, if necessary, India would exercise its nuclear option. A Serious debate followed this statement. There were eminent persons who strongly advocated nuclear weaponization. These included General (Retd.) V.N. Sharma, Uday Bhaskar, the Deputy Director Institute of Defence Studies and Analysis, and Brahma Chellany of the center for policy Research. Other known advocates of exercising the nuclear option included J.N. Dixit, K. Subrahmanyam and Jaswant Singh. Those who opposed the move included Praful Bidwai, Senior fellow at Nehru memorial library and Bhabani Sen Gupta. The leftist politicians also criticized the idea.

It is in this background, and in conformity with the Agenda for Governance that the Atal Behari Vajpayee Government ordered nuclear tests within one month of coming to power, and they were actually conducted in less than two months time of Vajpayee's swearing in as the Prime Minister. The nuclear tests (Shakti series or Pokhran-II) were conducted in such secrecy that even Americans with all their sophisticated system of intelligence collection failed to monitor the preparations that the Indian scientists and engineers were making for the explosion. When India Conducted its tests on 11 May, 1998 at 3:45 PM, not only the Prime Minister was overjoyed but the entire

nation took pride in the new status acquired by the country to ensure its security. India's decision was fully vindicated by the fact that clandestinely developed Pakistani nuclear weaponization was made overt when she conducted its tests on 28 and 30 May 1998 at Chagai. Surely, Pakistan had not acquired nuclear capability in less than three weeks of Indian explosion. It shows that Pakistan also possessed the capability. The Pokhran II tests were made possible by a number of scientists and engineers working under the overall control of the Chairman of Atomic Energy Commission, Dr. R. Chidambaram and Scientific Advisor to the Defence Minister, Dr. A.P.J. Abdul Kalam. It was a great scientific achievement for the nation. The scientists and engineers involved in the process became popular throughout the country and their genius and patriotism was being acknowledged by the entire nation. However one person who was given most of the credit was the prime minister of India Atal Behari Vajpayee. Right from Mrs. Indira Gandhi down to I.K. Gujral every prime minister had the opportunity to make India a nuclear weapon state, but none of them ordered the test due to one reason or the other. Mrs. Gandhi had planned some tests, after May 1974 blast, but she dropped the idea because she feared American reprisal. P.V.Narasimha Rao had to withdraw his order to conduct the nuclear tests when the American discovered in December 1995 that India was going to conduct the

tests. Under the American pressure he had to abandon the programme.

Jaswant Singh, ex-Foreign Minister writes: 'it is reasonable to conclude that Narsimha Rao, when he was the prime minister, had also ordered nuclear tests in 1995. Satellite imagery, and some even suggest human intelligence from India, revealed the plans to the US government, which then was made public, and the premier backed off.'[4]

Prime Minister Gujral had all the ingredients for tests but he could not do so as the withdrawal of Congress party's support to the minority government brought it down, and Gujral couldn't proceed with the tests.

But it was Vajpayee government that ordered nuclear tests within one month of coming to power, and they were actually conducted in less than two months time of Vajpayee's swearing in as the prime minister. Thus Vajpayee as the head of the government was primarily responsible for the tests and got acclamation from all corners.

But the question worth discussion is as to why did Vajpayee government decide to make India nuclear weapon state?

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4. Jaswant Singh, *Defending India*, Macmillan, Bangalore, 1998; p. 325.

The answer lies with the security environment around India stretching from Diego Garcia in the west in an encircling arc right up to Pakistan, Gulf and the Strait of Hormuz. There are a number of countries with nuclear weapon presence in the region. Pakistan's close relations with nuclear weapon powers, namely China and the United States couldn't be ignored by India. Pakistan itself had threatened with the use of nuclear and missile capacities. Besides it was essential for India to conduct the tests to ascertain its own capacity and to provide to Indian people a feeling of confidence and security.

China has always been an important factor in the making of Indian nuclear policy. It was a major concern again at the time of the 1998 Indian tests. This time the danger was not immediate but 'perceived' and a long-term security threat. As George Perkovich puts it: "perceived security threats from China and Pakistan added impetus to India's nuclear programme".[5]

The Chinese assistance to Pakistan's nuclear weapon programme has always been cause of concern for India. From the early 1960s onward, Pakistan was able to enlist China in its support as a result of the deterioration in India – China relations that led to the border war of 1962. Beijing not only became Pakistan major supplier

5. George Perkovich, *India's Nuclear Bomb: The Impact on Global proliferation*, Oxford University Press, New Delhi 2000, p. 64.

of conventional arms but also transferred nuclear material and technology, including reportedly blueprints for a nuclear weapon, and components and technology for missile development that helped Pakistan to further its nuclear weapons programme and augment its delivery capacity.

According to a leading Pakistani analyst of Pakistan's nuclear weapons programme, during the Zia regime (1977-88):

"China became a major supplier of nuclear know-how and hardware (to Pakistan) in a bid to counter India's military capabilities. Chinese assistance included the provision of weapons grade uranium, technical information on uranium enrichment, and help in setting up the Kahuta ultracentrifuge uranium enrichment plant, which became operational in the mid 1980s". The same analyst goes on to maintain that 'U.S. intelligence reports (concluded) in 1983 and 1984 that China provided the design for a low yield(bomb).[6]

Regarding the timing of the test it can be said that India had already delayed these tests for too long which had affected its security. The tests were necessary for technological and operational reasons, the objective being to lay the foundations for India to develop a deployable deterrent capacity against potential threats. Secondly the

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6. Samina Ahmed "*Pakistan's Nuclear weapons program: Turning points and nuclear Choices*' International Security, Vol. 23, no. 4, (Spring 1999), pp. 186-7.

discriminatory stipulations of the CTBT (Comprehensive Test Ban Treaty) would have become effective by the end of 1999, and then the proposed fissile material cut off treaty is coming up shortly for negotiations. Thus, any further delay in conducting tests would have been injurious to the country's national interest.

The Vajpayee government had been criticized within the country mainly on two counts. The first criticism concerned about the legitimacy of a minority and coalition government taking such a vital decision. In terms of number of seats in the Lok Sabha it might be a minority government but in terms of public opinion, conducting of the tests seems to have the general endorsement of the people of India.

The second criticism was that the government did not consult other political parties before taking the decision to conduct the tests. This criticism doesn't hold much validity because such sensitive issues are never preceded by public debate. Secrecy could not be maintained if such a consultation had taken place. Even in 1974 Mrs. Gandhi did not consult any other party before PNE, (Peaceful Nuclear Explosion) nor for that matter any of the five nuclear weapon states (P-5) held any open consultations before they conducted their nuclear tests

Justifying India's decision to exercise nuclear option, Jaswant Singh wrote that during the first fifty years of independent India, 'the

country's moralistic nuclear policy and restraint didn't really pay any measurable dividends'. This resulted in lot of resentment and a feeling grew that India was being dictated, and that it couldn't take any independent decision in matters of nuclear policy. Jaswant Singh added: 'in the political market place of India, nuclear weaponisation gained currency, and the plank of disarmament began to appear as both unproductive and unrealistic. It began to be argued that if the permanent five's possession of nuclear weapons is good, confers security to their respective countries, then how is the possession of nuclear weapons by India not good, or how does the equation reverse simply in this instance?'

Further, he said: there is also the factor of the currency of power. If the P-5 continues to employ this currency in the form of nuclear weapons, as an international communicator of force, then how is India to voluntarily devalue its own state power, which it has to, after all employ for its own national security?[7] It is this reasoning that lies behind the evolution of India's nuclear policy and finally in India's decision in favor of nuclear weaponisation.

India was the first country to call for a halt to all nuclear tests as far back as 1954. None of the then nuclear weapon powers cared to

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7. Jaswant Singh, *Defending India*, op. cit., pp. 326-27.

the voice of sanity expressed by Jawaharlal Nehru. Tests continued and the cold war reached its peak at the time of Cuban missile crisis in 1962. It is only after that that the Partial Test Ban Treaty was concluded. India adhered to it. India later took a number of initiatives both in the UN and outside for effective and non- discriminatory non-proliferation regime. For instance, India called for a non-discriminatory treaty on non-proliferation in 1965, for a treaty of non-use of nuclear weapon in 1978, for a nuclear freeze in 1988. These initiatives were not accepted by the nuclear weapon states that retained their weapons as essential for their security. Instead what they did was to adopt discriminatory NPT in 1968 (made effective in 1970 and indefinitely extended in 1995) and the CTBT opened for signature in 1996. These discriminatory regimes adversely affect India's security. For many years, India conveyed its apprehensions to other countries but this did not lead to any improvement in India's security environment. If anything, it continued to worsen with covert nuclearization of Pakistan. Making reference to this Jaswant Singh points out:

"This disharmony and disjunction between global thought and the movement of India's thought is unfortunately the objective reality of the world. In the totality of state power nuclear weapons as a currency of it, is still operational. Since this currency is operational in

large parts of the globe, therefore, India was left with no choice but to update and revalidate the capability that had been demonstrated 24 years ago in the PNE of 1974".[8]

India's nuclear policy has been marked by restraint and openness. It didn't violate any international agreements either in 1974 or in 1998. The restraint exercised by India for 24 years, after demonstrating her capability in 1974 is in itself a unique example. As the government said in 1998 after Pokhran II nuclear tests:

"Restraint... has to arise from strength. It cannot be based upon indecision or doubt. Restraint is valid only when doubts are removed. The series of tests undertaken by India have led to the removal of doubt. The action involved was balanced in that it was the minimum necessary to maintain what is an irreducible component of our national security calculus. This (Vajpayee) government's decision has, therefore to be seen as part of a tradition of restraint that has characterized our policy in the past 50 years".

Supporting the arguments that the Pokhran II, Shakti - 98 tests were based on the readiness for not less than 24 years, R. Rama Chandran argues that the test 'signaled the emergence of the Indian nuclear weapons programme out of the closet'. He adds:

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8. Ibid, p. 328.

'If five devices, and that too covering a range of weapon power, came out of the basement at a short notice of one month, and could be blasted within 48 hours, it is reasonable to assume that the basement has many more nuclear devices. This also indicates that 'broad-based weapons programme' has been very much in place for some time'.[9]

Western estimates of the Indian stockpile of weapons material vary, but according to Ramachandran, they have been in the region of 60-80 weapons. These figures are obviously based on conjecture rather than any hard evidence.

A reference has been made above to the rationale behind India's nuclear weaponization. According to Bharat Karnad 'Nuclear weapons are primarily for the security of the nation and constitute the ultimate guarantee of protection against states with an adversarial bent of mind. Nuclear weapons are solely means to deter war, not to fight it'. Nuclear weapons, thus, are not going to be used either by India or any other country to fight the war. They cannot be instruments for working for total disarmament either. So, what is their purpose. They provide security and become attributes of great power status. Bharat Karnad wrote: 'Nuclear weapons, first and foremost, promote strategic independence, are an attribute of great power and a manifestation of

9. R. Ramachandran, *Pokhran II: 'The Scientific dimensions'* in Amitabh Mattoo, ed., 'India's Nuclear Deterrent', op. cit., pp. 34-35.

nuclear anti-hegemonism'. Therefore, 'it is the strategic independence and anit-hegemonistic aspects that India needs to propagate as a just and enduring rationale for its nuclear testing and weaponisation programme, not the enduring abstraction of disarmament'.[10] In support of this argument is cited 'strategic independence' as the reason offered by Britain and France for their nuclear forces. It also motivated the Soviet Union and China to go nuclear.

If 'strategic independence' was the rationale behind nuclear weaponization of these four countries, that is exactly the reason why India decided to conduct the tests and acquire nuclear weapons.

Despite numerous appeals made to nuclear weapon states, nothing has been done in the direction of total nuclear disarmament. Since the nuclear weapon states refuse to give up their nuclear weapons, it is obvious that other countries, like India, with security compulsions and nuclear ambitions could not be expected for long to remain non nuclear. In 1961 president John Kennedy of the United States was reported to have said: 'only when our arms are sufficient beyond doubt, can we be certain beyond doubt that they shall never be employed'. This logic is equally applicable to India. She did not need

10. Bharat Karnad, '*A Thermonuclear Deterrent*' in Mattoo, ed., India's Nuclear Deterrent, op. cit., p. 111.

the nuclear weapons as means of war; she needed them as guarantee of security so that they will never be used.

So, under these circumstances India decided to go nuclear. However the Indian decision makers were confronted with one serious challenge emerging out of Indian nuclear tests. The challenge was whether sanctions imposed on India in the aftermath of the nuclear tests would adversely affect her economic development and modernization. There was never any doubt that sanctions would be imposed on India if nuclear tests were conducted and that these sanctions would undoubtedly have an adverse impact on the Indian economy, but this issue was fully gone into by the experts in the government, and, as, Dixit opined, 'India's basic national and human resources and the inherent strength of the Indian economy would be able to withstand the pressure of these sanctions'.[11] The sanctions were likely to have only minimum impact if (a) India remained politically stable and united; (b) India engaged itself in constructive discussions with other important countries to reassure them about their concerns; and (c) that economic liberalization programme was not allowed to be diluted. The events of the next ten months prove that India came out fairly successful in all these respects and countries like the US, who were very quick in imposing sanctions began relaxing

11. J.N. Dixit *Across Borders*, Picus, New Delhi, 1998, pp. 428-30.

them while continuing to insist on India signing the NPT as non-nuclear weapons state. India completely rejected the suggestion for how could a nuclear weaponized India give up its deterrence and once again seek mercy of big powers. By March 1999, the P-5 had realized that India was not going to sign the NPT and the CTBT on their terms. It might do so only on its own terms and conditions.

Pakistan's nuclear program, unlike that of India, initially lacked a dominant scientific leader like Homi Bhabha. It was not until I.H. Usmani took over form Nazir Ahmed as chief nuclear scientist and Zulfiqar Ali Bhutto assumed the country's presidency that an effective collaboration between the scientific community and government leaders began to take shape. Pakistan found its Bhabha in Dr. Abdul Qadeer khan only after India conducted its "peaceful nuclear explosion" in 1974. Although Bhutto advocated a military nuclear program earlier and convened a meeting of nuclear scientists in Multan for this purpose in 1972, the Indian test in 1974 provided the decisive political patronage needed to move the program forward.

Bhutto urged consideration of a military nuclear program while minister for Fuel, Power, and Natural Resources in the 1960s, but the then president Ayub Khan focused the nuclear program on civilian energy production. Ayub Khan's preference for peaceful nuclear energy

was partly a result of his confidence in the United States as a strategic ally. He was the main architect of Pakistan's entry into U.S. sponsored alliances, the South East Asia Treaty Organization (SEATO) and the Central Treaty Organization (CENTO), and he believed that in the case of war between Pakistan and India, Washington would guarantee Islamabad's security. When pressed by Bhutto on developing a military component for the nuclear program, Ayub Khan replied that if a nuclear capability were needed, Pakistan could buy it "off the shelf", apparently referring to the American nuclear program.[12] Bhutto did not share Ayub Khan's confidence in American assistance nor his apparent faith in the peaceful nature of the Indian nuclear program.

Several events motivated the transformation of Pakistan's nuclear program form an exclusively peaceful effort to one with a substantial military component. First was the falling-out politically between Ayub Khan and Bhutto in the wake of the 1965 war and subsequent Tashkent agreement. Ayub Khan's political fortunes ebbed, while Bhutto emerged as a political force in his own right. The dismemberment of Pakistan in the 1971 war also played a major role. As one analyst observed, "Given the ability of Indian armed forces to 'free' any of the remaining constituent territories of Pakistan at will,

12. General Mirza Aslam Beg, '*Taking Down the Nuclear Fence*', The News (Islamabad), 2nd January 1995.

and the continuing difficulty of the Indo-Pakistan leadership to evolve a peaceful, coexistent modus vivendi, it was hard for the Pakistani elite as well as the public to feel confident about the future integrity and security of their country.[13] The Indian nuclear test in 1974 provided additional momentum and proved decisive in creating support for a more active military nuclear program. President Bhutto pressed ahead with the weapons program. Dr. A.Q. Khan was placed in charged of a new nuclear organization separate from the Pakistan Atomic Energy Commission (PAEC) and given the mandate to develop the capacity for enriching uranium to weapons-grade quality. An ambitious undertaking was also mounted to recruit Pakistani students and scientists living abroad to participate in the nuclear program.

Subsequent Pakistani governments have continued the steady development of the nuclear weapons program. President Ziaul Haq ironically benefited from Soviet invasion of Afghanistan, which prompted Washington to turn a blind eye to the nuclear program and to provide the F-16 aircraft the could be used as a potential nuclear weapons delivery system. When the United States reimposed non proliferation sanctions in the wake of the Soviet withdrawal from Afghanistan, Pakistan offered the minor concession of capping its

13. Shirin – Tahir – Kheti, *The United States and Pakistan. The Evolution of an Influence* (New York: Praeger, 1982), p. 119.

uranium enrichment program but other wise maintained the momentum of its nuclear development program. By the early 1990s Pakistan had acquired nuclear weapons capability, as confirmed by the declaration of Foreign Secretary Shaharyar Khan during a trip to Washington 1992. Then former Prime Minister Nawaz Sharif declared in August 1994 that Pakistan possessed nuclear weapons.

Pakistan's position has remained consistent over the years despite changing political alignments and international conditions. The official line continues to be that Pakistan has the capability to weaponize its nuclear program but that it will do so only if India weaponizes its program or detonates another nuclear explosion. Islamabad's approach to arms control diplomacy also remains fixed. Pakistan says it will sign the Nuclear Nonproliferation Treaty, NPT, only if India signs. Islamabad has proposed a number of regional solutions to the nuclear quagmire in South Asia, but India consistently rejects these suggestions, arguing that denuclearization must be international, encompassing China and all the nuclear weapons states. The result is a continuing diplomatic impasse.

After the Indian tests of 11 and 13 May 1998, Pakistan also in pursuance of its policy conducted five nuclear tests in Chagai hills in Baluchistan province on 28 May and one on 30 may1998. Thus

Pakistan gave up its policy of maintaining deliberate nuclear ambiguity and became on overtly nuclearised state.

After detonating five nuclear weapons on 28 May at 5:17 pm (IST), Pakistan had realized its goal of nuclear parity with India. Pakistani Prime Minister, Nawaz Sharif, addressed the nation on television the same evening. He disclosed that his country had conducted five tests. He said that five nuclear devices detonated by India two weeks earlier had 'violently titled the balance of power in the region.' Nawaz Sharif didn't give any information about the type or strength of the five devices. However, the Australian Geological survey organization said that it had registered Pakistan's five nuclear tests, with one Explosion of 5.0 magnitude Expecting immediate western sanctions, Sharif tried to boost the Pakistani people's morale, and said that his government would sell off a large number of government buildings and offices and use the money to help the country through the tough times ahead. He told the people "your government is with you. We will have sanctions. We will have difficulties but if you have the strength, there is no way we can fail."[14] Reacting to the Pakistani nuclear blasts, India's Prime Minister, Atal Behari Vajpayee, said that a new situation had been created which would be taken into account

14. *The Times of India*, 29 May 1998.

before formulating India's policy. He asserted that the Pakistani tests had "vindicated" his government's decision to go nuclear.

The Pakistani tests justified India's conclusion that it had not only China as a nuclear weapon neighbour, but Pakistan also possessed the weapon. Hence it was in India's national interest to have gone nuclear. After all Pakistan didn't develop its nuclear devices in two weeks of time.

Pakistan had its own reasons to go nuclear. Pakistan has always feared its vast neighbour India, relations with which has been hostile since the very inception of the country. India's growing nuclear capability that ultimately came out in open in May 1998 forced Pakistan to reassess its security imperatives.

Pakistan bases its nuclear option solely on its threat perception vis-à-vis India that is for superior to Pakistan in terms of conventional force. Precisely because of its inability to match India in conventional weapons, Pakistan considers nuclear capability as a "great equalizer" against India's conventional and military superiority[15] and worth pursuing by all means. In other worlds Pakistan has been trying to protect its security vis-à-vis India through nuclear deterrence. Pakistan was never too worried about a nuclear threat from any of five

15 See for instance, Zia Mian, *Renouncing the Nuclear Option* in Pakistan and the Bomb, Samina Ahmad and David Cortright, Eds. (University of Notre Dame Press, 1998).

NWS. However a potential threat from India could pose great problems for Pakistan. Nuclear India would be further emboldened to use its greater conventional weapons might for aggressive purposes against Pakistan and Intimidate and demoralize the country. The climate of distrust and hostility between the two countries and their diverging national interests further complicate the matter.

Pakistan's nuclear programme has a symbiotic relationship with Indian nuclear programme. As General Beg writes: "No study of Pakistan's nuclear programme would be complete without a similar look at India's programme. There are corresponding phases and stages between those two programmes".[16]

The domestic political compulsions of Pakistan are such that any government cannot ignore the fundamentalist forces for long. The fundamentalists since long have been advocating for an "Islamic bomb".

The national self-esteem of the people of Pakistan as well as the pressures emanating form scientific communities were the other factors responsible for the Pakistani test.

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[16] General Mirza Aslam Beg, *Pakistan's Nuclear Programme: A National Security Perspective in Nuclear rivalry and international order*, Jorn Gjecstad and Olav Njulstad eds. PRIO, Sage Publications, New Delhi, 1996, p. 161.

The indo-centric approach of Pakistan nuclear policy is quite explicit. Now retired, former president, Ghulam Ishaq Khan and former COAS (chief of army staff) Mirza Aslam Beg have stated their belief that Islamabad's nuclear posture has prevented India from attacking Pakistan. As Beg says: "Far from talk of nuclear war, there is no danger of even a conventional war between India and Pakistan. As compared to previous years, there is no possibility of an Indian Pakistan war now."[17]

Pakistan considers nuclear weapons as deterrence against India's nefarious designs. Pakistan's view was expressed in Prime Minister Benazir Bhutto's statement during her April 1995 visit to Washington: "Our Nuclear program is peaceful. But if the existence of our technology and perceived capability has served as a deterrent to India – as a deterrent to a proven nuclear power that has gone to war against us three times in the last 48 years, I certainly have no apologies to make, not in Islamabad, not in New Delhi and not in Washington."[18]

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[17] *Ex-President discusses Nuclear Programme Politics.*, "Foreign Broadcast Information Service (FBIS) Daily Report, Near East and South Asia, July 26, 1993, pp, 69-71, and "*General Beg Claims country conducted 'cold' Nuclear Test*" FBIS, Daily Report, Near East and South Asia, August 3, 1993, p. 56.

[18] Thomas W. Lippman and R. Jeffrey Smith, '*Bhutto: Deliver F-16s or Return Payment*, Washington Post April 11, 1995.

Thus Pakistan was convinced that nuclear weapons are guarantors of security against any Indian aggressive design and hence at the very first opportunity Pakistan gave up her ambiguous nuclear policy in favour of a more robust and transparent nuclear program. Pakistan decided to go overtly nuclear immediately after Indian nuclear tests in May 1998.

At this juncture it is pertinent for us to analyze Indo-Pak nuclear doctrine in a comparative perspective. India's strategic perspective for its nuclear doctrine encompasses a wider perspective than south Asia in keeping with its strategic potential. Pakistan's perspective as presently evident seems to be India specific. Some of the salient points in comparative analysis of the Indian and Pakistani nuclear doctrine are:

(i) India swears by the 'no-first use' principle. 'The fundamental purpose of Indian nuclear weapons is to deter the use and threat of use of nuclear weapons by any state or entity against India and its forces. India will not be the first to initiate a nuclear strike, but will respond with punitive retaliation should deterrence fail."[19]

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[19] *"Draft Report of the National Security Advisory Board on Indian Nuclear Doctrine*, 17 August 1999". Pp. 2-3.

Pakistan is averse to this. It would not given any such guarantees, feeling that it negates its deterrence against India.

(ii) Indian nuclear weapons system will be 'TRIAD' based.[20] However the then foreign minister in an interview said that talk of an Indian nuclear triad is 'premature'. He said: "It is premature to talk of an Indian triad. Let me suggest that you look at the Indian nuclear deterrent as a "triad" based on a different set of three dimensions – a deterrent that is minimum but credible because it is survivable and backed by effective civilian command and control to ensure retaliation".[21] Pakistan on the other hand currently get limited to land based and aircraft delivery systems.

(iii) Indian and Pakistani Doctrines, both emphasis 'credible minimum deterrent'. However, Pakistani capabilities in this direction may be questionable.

(iv) India's nuclear arsenal will be under civil political control. Pakistan's nuclear arsenal will be under defacto control of the army chief.

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[20] Ibid. p. 3.

[21] "*Clarifying India's Nascent Nuclear Doctrine*", an interview with Indian Foreign Minister Jaswant Singh, Arms Control Today, December 1999, p. 19.

Pakistan's obsession with India and Indian nuclear program is an established fact. According to Moonis Amar, "The Indian Explosion of May 1974 added a new dimension to the indo-Pak relationship. A nuclear India with its immense conventional military capability was a prospect Pakistan, in particular, and other regional states, in general, feared..."[22] In order to meet the Indian threat Pakistan initiated its nuclear weapons program, the most remarkable characteristics of which is the covert techniques to obtain blueprint, nuclear materials and components form different parts of the world. Whatever be the method adopted by Pakistan the fact today is that Pakistan is now clearly a nuclear weapon powers. As Ashley J. Tellis writes: "Whatever uncertainties may have existed about Islamabad's nuclear capabilities in the subcontinent and beyond were permanently laid to rest in May 1998 when Pakistan demonstrated that it possessed nuclear devices that were capable of producing militarily significant yields..."[23] He adds further: "Pakistan's nuclear potential, as exemplified both by its weaponry and by the plethora of delivery systems it is developing or has already acquired is certainty

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[22] Moonis Amar, "*Security Perceptions in the indo-Pak Relationship*". Pakistan Horizon, Vol. 37, no. 1, First Quarter, 1984, pp. 110-111.

[23] Ashley J. Tellis "India's Emerging Nuclear Posture" Between Recessed Deterrent and Ready Arsenal, Oxford University Press, 2001, pp. 39-40.

problematic... in India's post independence history..."[24] Pakistan in the post 1998 phase has emerged, as a serious challenge to India and the direction of Indian nuclear programme will be up to a great extent determined keeping in mind Pakistan's capability. As Tellis writes "the steady transformation of India's nuclear posture in the direction of continued weaponization will be driven to a great extent by the growing perception among Indian policy makers that... Pakistan represents a "clear and present danger" to Indian security today."[25]

Nuclear weaponisation of south Asia is a reality. Irrespective of the claims made by the Indo-Pak policy makers and their intentions, there is very little doubt that in the post Pokhran-II and chagai phase south Asian security is facing its greatest challenge.

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[24] Ibid, p. 45.
[25] Ibid, p. 75.

CHAPTER IV

REGIONAL SECURITY IN SOUTH ASIA AFTER 1998 TESTS

India and Pakistan, the two major states of South Asia conducted nuclear tests in May 1998, respectively in Pokhran and Chagai. With this the lingering doubts about their nuclear capability was removed. This event should be considered as a landmark development in the arena of international politics in general and regional politics in particular.

The Indian and Pakistani tests of May 1998 were the result of the interplay of various factors viz; the security concern of the two country's, quest for increased influence in the international arena, pressures emanating from the scientific community, the discriminatory nature of the international non-proliferation regime etc.

The major problems of South Asia emanate form-continuing antagonism between India and Pakistan. Since the nuclear explosions by these two countries, their old rivalry has taken a new dimension. While Kashmir issue is a major hurdle to normalization of their relations, the inadvertent or accidental use of nuclear weapons cannot be ruled out.

Whether intended or unintended the tests seem to have brought about a qualitative change in the security scenario of the region. So, at this point it is pertinent for us to understand the implications of the May 1998 tests for the regional security in South Asia

Security implies the absence of real or perceived threats whether stemming from external sources or internal troubles or incumbent economic disparities and inequalities of certain coveted values. To cope with perceived threats, nations tend to seek power hoping that power alone may generate the desired level of security. One nation's ability to attain an adequate level of security may in turn, breed insecurity for the other. Insecurity would compel the other nation to tilt the scale in its own favour. Such a process often results not only in the regional arms race but also invariably introduces the extra regional actors into regional conflict. South Asia is one such region where the nature of regional security issues are somewhat autonomous but the involvement of great powers directly affected the military balance within the region and introduced further complications.

Since the roots of security problems in South Asia are indigenous, the threat perceptions are sufficiently diverse to preclude a common approach. For India the major sources of threat continue to be China and Pakistan. Similarly for Pakistan, and to a

lesser degree, for Bangladesh, Sri Lanka, and even Nepal, the main threat emanates from Indian policy pursuits. Undoubtedly India is a dominant power in the region and in consequence its policies affect the security perceptions of other regional neighbours. As Stephen P. Cohen writes: 'To its smaller neighbours India has always been a great power. It has had a strong impact on their cultures, their economies, and even their identities. This power has been of great concern to Pakistan, the only state in the region to have challenged India'.[1]

He writes further: 'India sees itself as the primary South Asian State but to its neighbours' view it is more like the regional hegemon and even the regional dominant power'.[2]

The ramifications of these tests for the regional security can be understood better in this background. Among various implications of the tests the main are:

- In any future conflict between India and Pakistan; India cannot rule out the real possibility that Pakistan when driven to the wall, will resort to using its nuclear weapons, ignoring the dire consequences, which may result later on. The logic of nuclear deterrence, which was successful in the case of cold-war rivals USA and USSR doesn't seem at work in South Asia in the

[1] Stephen P. Cohen, *'India Emerging Power'* (Oxford University Press, 2001), p. 1.
[2] Ibid. p. 244.

absence of C_4/I_2 (command, control, communication, computer, information and intelligence).

- There could be a regional arms race with China, India and Pakistan each engaging in a series of build-ups aimed at countering one another's capabilities to ensure the invulnerability of their respective nuclear deterrence.
- The set back in Sino-Indian relations on the one hand and Sino-Pakistani defence and strategic equations on the other would ultimately vitiate the entire environment of South Asia.
- A nuclear endowed India might become more assertive in its policies in relation to the non-nuclear smaller neighbors.
- Though at this stage it doesn't seem probable but can't be ruled out for future, that some of the other South Asian countries like Bangladesh and Sri Lanka may go for nuclear option. So there is the long-term danger of proliferation of WMDs in the region.
- Major actors in International relations like USA, and China have got opportunity to play more active role in the region in the name of mediation and conflict resolution. This doesn't augur well for the security of the region. Already the presence of US nuclear forces in the Indian Ocean poses threat to the region's security. Nuclear tests have further given them a change to enter into the

regional politics. They can be more assertive especially in the changed political economic milieu of the region.

- An uncontrolled nuclear arms race would lead sooner or later to unnecessary regional tension in South Asia that may ultimately impede the development of SAARC as a strong regional economic forum in the region.

- Economic sanctions by the western and developed countries against India and Pakistan would automatically slow down investment and commerce in the region as a whole and would naturally have a spillover effect on the economies of Non-nuclear South Asian countries.

- One very important implication is the fear of the nuclear arms being smuggled into wrong hands. There are major terrorist gangs in the region that may get access to some nuclear weapons. It might not be possible for them to have a sophisticated nuclear programme of their own, but possession of even few nuclear arms can prove very dangerous for the countries like Maldives and Bhutan. The formers security was already threatened in November 1988 When a group of Tamil mercenaries landed on the shore and tried to topple the government. The vulnerability of a microstate to attack from organized criminal gangs and the dependence of these states on

an external power for security poses serious question about the credibility or lack thereof of the nuclear South Asia.

- The recent trend towards religious extremism and religion's role in shaping national foreign policies has brought the question of religious fundamentalism and particularly Islamic fundamentalism in prominence. There are two Islamic states in the region, with one going overtly nuclear, the fundamentalist forces within Islam that were advocating strongly the case for a Islamic bomb may get a boost. It will be detrimental for the security environment of South Asia.

The basic concept of deterrence is a simple one: that of inducing someone to refrain from unwanted action by putting before him the prospect that taking it will prompt a response with disadvantages to him outweighing the advantages of the action. This concept has always had a part to play in the management of human relationships.

During the years after the Second World War the term "deterrence" came however to special salience in the nuclear context. The theory of nuclear deterrence played a pre-eminent role in influencing those who were responsible for formulating the nuclear strategy during the period of East- West confrontation in the cold war. The end of the cold war has profoundly changed the outlook of the nuclear deterrence. The cold war unified the strategic

scene; there was a single strategic theatre dominated by the East-West confrontation. It is no more the case: the world has fragmented, and there are several, independent and yet inter-related strategic situations, one such case is the South- Asian nuclear deterrence.

The term nuclear deterrence is used in this study as meaning a property of a military force possessed by a state which, by its mere existence or by threat of its use, but not by the actual use of such force, has restraining effects on its adversaries and prevents them from resorting to armed attack on the state. It must also be recognized that a military force, on the other hand, has destabilizing and escalating effects, which could lead to armed conflicts. Accordingly, the concept of nuclear deterrence is viable if it is capable of preventing nuclear conflicts from occurring. That is possible only when there exist arrangements, legally or otherwise, to safeguard against the occurrence of such conflicts

It is obvious that any force, whether it is conventional or nuclear has deterrent effects. But there are genuine doubts about the potential of these (nuclear) weapons as absolute guarantors of peace. Indian and Pakistani nuclear tests seriously challenge the credibility of nuclear weapons as weapons of deterrence.

India's nuclear strategy, as suggested, is based on the principle of deterrence. The strategy has been enunciated in several

different places, such as in the document ' The Evolution of India's Nuclear Policy' tabled in parliament on May 27,1998.[3] Other subsequent statements and documents have clarified and elaborated on the themes set out in this earlier statement.[4]

The Indian nuclear strategy, based on deterrence has several elements that can promote stability. In particular the emphasis on minimum numbers, the insistence on secure and firmly controlled second-strike forces and the low-burden command and control requirements, all combine to reduce the threat that other nuclear states in the region should feel from the Indian force, while at the same time providing India with the required deterrence capability.

But stability is also dependent on the nuclear forces in India's neighbourhood. If there is the danger of nuclear instability in the India-Pakistan nuclear relationship it comes principally from Pakistan's nuclear doctrine, which emphasizes war- fighting rather than deterrence. Pakistan's doctrine emphasizes the first use of nuclear weapons, and Pakistan has repeatedly rejected calls for an NFU pledge, pointing to what it considers India's superior conventional capability. Indeed Pakistani leaders have repeatedly called for conventional arms control as an essential part of any

[3] Government of India, paper laid on the Table of the House on Evolution of India's Nuclear Policy, available at www.meadev.gov.in/govt/evolution.htm.

[4] *The Draft Report of the National Security Advisory Board on the Indian Nuclear Doctrine*, available at http://www.meadev.gov.in/govt.indrucid.htm.

nuclear deal.[5] This appears to be a continuation of the offensive orientation of Pakistan's conventional military doctrine, but with a more dangerous nuclear twist.

A doctrine that emphasizes the first use of nuclear weapons is inherently more dangerous because Pakistan will need to keep its nuclear forces, small though they might be, in a constant state of readiness. Moreover, there is little doubt about who Pakistan's target is: in July 1998,then foreign minister threatened that "any aggression on us from any side will be met with a merciless reprisal against India." [6] Pakistan would also need to acquire all the paraphernalia required for such a doctrine and force posture, such as early warming and command and control systems. Existing Pakistani capabilities in this area leave a lot to be desired: they were unable to detect the dozens of American cruise missiles that violated Pakistani airspace during the American assault on terrorist camps in Afghanistan. On the other hand, they "detected" non-existent Indo-Israeli attack preparations the night before the Pakistani nuclear tests. Such incompetence added with a dangerous first- use doctrine, should be cause for serious concern.

Deterrence has an important psychological content. It is regarded as a policy, which seeks to prevent or discourage an action

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[5] *Pakistan Mission to the United Nations*, New York.

[6] Gohar: *N-Arms Enhancement Will Lead To War*", The Hindustan Times, July16, 1998. The story was based on an interview that Khan gave to the Egyptian daily Al-Ahram.

by confronting an opponent with risks he is unwillingly to run.[7] Henry Kissinger would say, "what the potential aggressor believes is more crucial than what is objectively true. Deterrence occurs above all in the minds of men.[8] The effectiveness of deterrence, as guarantee for absence of any confrontation would depend on the way one nuclear state perceives the strength and weakness of the other. In this particular case of India- Pakistan relations in the post-nuclear context, the deterring value of the open nuclear status is not well perceived by the states concerned. This is more so in the case of Pakistan. The nuclear capability seems to have infused a disproportionate confidence into the Pakistani army. The mujahideen smokescreen has been particularly conducive for the Pakistani army to launch proxy attacks on India. The psychological fear of a confrontation erupting into nuclear war, is as such, totally absent, when the aggressor wears a façade, refusing to own up the aggression.

The failure of nuclear deterrence has been emphasised by many nuclear strategists, diplomats and analysts ever since the Korean war. Even if the context here is different, still like in the Korean case where the nuclear weapons could not translate into political influence, in this case too, the non-usability to the nuclear weapons dispossessed it of its effectiveness. Nuclear weapons as

[7] Honore' M Catudel, *Nuclear Deterrence: Does it Deter?*, New York, Manshell Publications, 1985.
[8] Henry Kissinger, *American Foreign Policy*, New York, W.W. Norton, 1974, p. 15.

such do not deter the use of conventional weapons in lesser conflicts. In fact, with the fear of an all out nuclear attack gone with the deterrence factors, inter-state conflicts are likely to carry on through small conventional wars, especially when the positions of the warring countries over a dispute are irreconcilable and the conflict has an ideological angle to it.

The Kargil episode was one such instance of the inefficacy of nuclear deterrent in preventing conventional war. In May-June 1999, militants intruded into Kashmir in the Kargil sector forcing Indian army to respond to such a surprising attack. Very soon the armies of India and Pakistan were fighting along the Line of Actual Control and even the downing of Pakistani plane, Atlantique at the Kutch sector suggested that the warfront may not stay limited to Kashmir and spread out to other segments along Indo-Pakistan border.

The Sharif administration joined the fray when the army action had created a national stir forcing it to take up an unequivocal stance over the issue. In fact, the pressure on Sharif was building up ever since he signed the Lahore Declaration and on28 February, 1999-eight days after the signing of the accord - Sharif threatened to 'suspend' talks with India unless India fixed up a deadline to resolve the Kashmir issue.[9] Against this backdrop, the

[9] Reported in the Asian Age (New Delhi) 1 March 1999.

second track diplomacy was activated from the Indian side to keep the things under check. But before it could materialize, the international pressure started building up on Pakistan forcing it to call off the Kargil aggression in return of an American Presidential pledge to take active interest in the resolution of the Kashmir issue in the Blair House Declaration of July 4, 1999.

The conflict between India and Pakistan is a conflict that is more ideological than territorial. Kashmir is just an excuse for two contradicting ideologies struggling for legitimacy. The secular plurality of a democratic India has been an anathema for Pakistan, which is grounded in Islamic values. The success of a secular democracy has been perceived as a potentially disturbing factor for the polity of Pakistan, rooted in a feudal, not so egalitarian socio-economic structure. Even if the roots of the democratic institutions have gone too deep into the Pakistani soil, the forces determining the courses of politics in Pakistan have always tried to interpret democracy in Islamic terms.

In such a case, when conflict is irresoluble, the potential for an armed encounter is very high, especially when Pakistani establishment has consciously, even if indirectly, encouraging elements, which are potentially destabilising for India. The scope for limited conventional engagement is as such very high. For instance, in the case of Kashmir, Pakistan has sought to hide behind the

veneer of 'mujahideens', making the limited war look like an insurgency, waged between the indigenous Kashmiri militant groupings and the Indian state. The militancy in Kashmir has also been given a new facelift with the introduction of suicide squads and sophisticated weapons. The Kashmiri movement, if there is any, now consists of non-Kashmiris, with Afghans filling up the ranks at an increasing rate. The stage is thus all set for limited confrontations with Pakistan fighting proxy war in the name of the militants.

This is here that the strength or weakness of the deterrence should be measured. Nuclear states can be deterred against waging nuclear wars. But can an insurgent group be deterred by nuclear weapons? The true test of nuclear weapons in the sub-continent lies in their capability to deter armed groups from waging wars against the government. But unfortunately, no nuclear deterrence can work against an internal enemy. Soviet nuclear capability could not ensure the territorial integrity of the Soviet-Union. Thus, nuclear deterrence that the strategists are advocating these days cannot eliminate the threats to internal divisions. In fact, in this case Pakistan has very well activated its intelligence to wreck India from within.

Of course, the effect of nuclear deterrence in containing the sway of the limited war has to be acknowledged for in the wake of

the Kargil encounter, India was seen to be activating the second track diplomacy to open the corridor of dialogue with the political establishment in Pakistan that had had a sobering effect on the conflict. But, still without external pressure, Pakistani pull out would not have come about soon and the proxy engagement would have continued in a low scale for some more time.

The fact remains however that open nuclear posture of the two countries has made limited conventional war immensely possible. The repeated cry for many more Kargils by militant groups suggests that India may be in for another Kargil-type confrontation in Kashmir. Moreover, as the media and defence reports suggest, the battlefronts may not remain limited to Kashmir alone. The proxy war Pakistan has launched in the shape of penetration into Indian hinterland would lead to bigger threats to national security for India in Northeast and other trouble-prone areas.

In the wake of the intensification of the Kargil crisis, many commentators in the Indian media attributed the Pakistani climb down to the nuclear deterrence factor. The activation of the second track diplomatic corridor during this period also gave credence to their theory of nuclear deterrence. The National Security strategists in Indian are seen to be arguing in favour of the relevance of such a concept and endorsed 'weaponisation' in their recommendations.

The weaponisation programme may have already begun in the meanwhile to keep the deterrence going.

However, it is one thing to recommend nuclear deterrence and it is quite another to keep such deterrence going. One ought to ponder seriously over the risks and rising costs that would involve the whole experiment. The South Asian regional nuclear deterrence is qualitatively different from the deterrence we had seen operation at the global level during the cold war. The nuclear installations of the two power blocks were lying too far apart necessitating development of missiles to carry them forward to targeted locations. The geographical distance played a decisive role in the course of arms race and development of technology like 'nuclear umbrella' for defence against nuclear attack. This also demanded precision at command and control levels. The geographical proximity in the case of the two neighbours in the nuclear South Asia would even demand more precise and more sophisticated systems of command and control more alert surveillance systems for sustaining such deterrence.

When we compare the nuclear status of India and Pakistan from a strategic perspective we would stumble upon the fact that in reality possession of nuclear weapons would be more assuring for Pakistan than India. It has certainly made any attack on Pakistan by India squarely impossible. Given the history of the last several

decades, Pakistan has launched several all out operations against India in 1947, in 1965 and again in 1971. The only time there was any semblance of Indian attack was in 1971 in the eastern part of the then Pakistan, (and there were legitimate compulsions from the Indian side to intervene on behalf of an innocent populace subject to brutal torture from the West Pakistani side). Against this backdrop, it looks quite probable that the sense of Pakistani nuclear reassurance will cast a shadow on the Indian security by giving a fresh lease of life to its belligerent ambition, as has been corroborated by the Kargil invasion. While on the other side of the spectrum the soft Indian threats of cross border security forays (for destroying militant training camps and hideouts) have started generating disproportionate reactions.

It is in this context that one must analyze the effectiveness of the nuclear deterrence. Any discerning observer would notice that Indo-Pak relations, in the context of the Kashmir issue or without it, has taken a turn towards the worse since the 1980s. With the possibility of an all out Indian attack on Pakistan squarely averted (since the introduction of the nuclear factor into the Indo-Pak security scenario), Pakistan has started activating its intelligence to launch subversive operations in India. The principle that dominates Pakistani strategic thinking has been to weaken India by engaging it in internal troubles. One can also call such operations 'wars':

'micro-wars' (insurgencies) or 'macro-wars' (Kargil intrusion) [using Johan Galtung's classification][10]. If nuclear deterrence has receded the possibility of 'mega-wars', it has made 'micro-wars' very much probable.

An additional concern is the possibility of accident or inadvertent war between India and Pakistan. In any scenario, inadvertent or intentional, in which a decision is taken by Pakistan to use nuclear weapons, the lack of effective command and control over nuclear weapons and the limited extent of Pakistan's nuclear capabilities mean that Pakistan will be forced to rely on only the most rudimentary form of military doctrine.

Neither country, especially Pakistan has the necessary human and technological resources to develop the elaborate and redundant command and control systems required for the use of these deadly weapons.

Credible information about nuclear command and control systems in Pakistan is not available. The assumption is that this capability like the nuclear program as a whole is tightly under the command of the armed forces.

As far as the South Asian Nuclear Arms competition is concerned it can be said that it has developed as a two-phase historical process. In the first phase the Indian and Pakistani

[10] Johan Galtung, *Peace War and Defence*, Vol.-II, Copenhagen: Christian Ejlers, 1976.

nuclear weapon programs began as links in a global proliferation chain extending back to the second world war.

China's 1964 explosion and subsequent weapon program stemmed from Beijing's concern over first the US and later the USSR as threatening super power adversaries. In turn, India's 1974 "peaceful Nuclear Explosion" was the result of a sustained national debate over Indian nuclear weaponization in the wake of the Chinese test. Finally, Pakistan's 1972 decision to pursue its own nuclear weapon program was precipitated by its devastating defeat in the 1971 Bangladesh war, and confirmed by India's 1974 nuclear tests.[11]

The 1970s marked the shift from the first, global, stage of the South Asian nuclear proliferation process to the second, regional, stage. Some analysts believe China remains Indian nuclear planners' primary concern,[12] while others think that since India's 1974 nuclear test and Pakistan's successful efforts to acquire nuclear weapon technology, the India – Pakistan dynamic has become the central element in South Asian nuclear proliferation. As Richard P. Cronin writes, although India's nuclear ambitions originally derived from other factors, "the crux of the proliferation

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[11] Neil Joeck, "Pakistani Security and Nuclear Proliferation in South Asia", in Neil Joeck, ed., Strategic consequences of Nuclear Proliferation in South Asia (London: Frank Cass, 1986): pp. 86-87.

[12] Mohammad Ayoob "*India in South Asia: the Quest for Regional predominance*", World Polity Journal 7, no. 1, (Winter 1989-90), pp. 107-33 and Brahma Chellaney "South Asia's Passage to Nuclear Power," International Security 16, no. 1, (summer 1991): pp. 43-72.

threat lies in the India-Pakistan rivalry.[13] By the mid-1980s "Concerns over nuclear development in Pakistan had become by far the dominant factor in Indian nuclear decision making.[14]

Steady improvements in nuclear weapon and delivery capabilities have marked the second phase in South Asian nuclear weapon development.

Since the May, 1998 nuclear tests, India has stepped up its missile program, developing not only land based ballistic missiles but also sea-launched missiles. India's minimum nuclear deterrent doctrine envisions of triadic nuclear defense. Pakistan currently gets limited to land based and aircraft delivery systems.

In future India and Pakistan may engage in a series of build-ups aimed at countering one another's capabilities to ensure invulnerability of their respective nuclear deterrence; there is already a debate going on it in India about the force size of the Indian nuclear programme. 'Sundarji estimates that a total force of 90-135 fission devices would be adequate to absorb a first strike and yet have enough to respond to both Pakistan and China.' Bharat Karnad says that in terms of force structure India should be armed with the full array of nuclear weapons from thermonuclear

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[13] Richard P. Cronin, "*prospects for Nuclear Proliferation in South Asia*," MiddleEast Journal 37, no. 4 (Autumn, 1983), p. 606.

[14] Leonard S. Spector "*Nuclear Ambitions: The Spread of Nuclear Weapons*, 1989-90, (Boulder, Colo: Westview 1990), p. 66.

devices at one and to tactical devices at the other including perhaps 'atomic munition devices.'[15]

Brahma Chellany is of the view that India may need tactical weapons is order to counter the tactical devices of China and Pakistan, to enhance a defensive defense posture, to deal with large-scale attacks by conventional forces, and to effect escalation control.[16]

The Indian nuclear force structure is bound to have a definite and proportionate impact on the Pakistani nuclear force structure as it has been established in the past that Pakistan has long considered its nuclear weapons capability not merely a tit-for-tat answer to India's strategic superiority in conventional arms.

Under Such circumstances an arms race is inevitable. If India's stance would be one of pushing to protect its nuclear weapons and delivery systems in order to maintain a credible second strike capability, then Pakistan's would logically be the stance of trying to override this advantage by developing a substantially greater first strike capability.

The test firing of the extended range Agni – II intermediate range ballistic missile (IRBM) on April 11, 1999 resulted in a tit-for-tat response from Pakistan in the form of the test firing of the

[15] Bharat Karnad, "*A Thermonuclear Deterrent* in Matoo ed., India's Nuclear Deterrent, Pokhran II and Beyond, New Delhi, Har Anand, 1998, pp. 140-44.
[16] Brahma Chellaney, "*Nuclear Deterrent Posture*" in Brahma Chellaney (ed.), Securing India's Future in the New millennium, New Delhi, orient Longman, 1999, pp.209-14.

Ghauri II missile on April 13, and the subsequent testing of the Shaheen and Trishul missiles by Pakistan and India respectively, introduced major new tensions in the Indo-Pak relationship. With Pakistan government accusing the Indian govt. of aggravating the conventional imbalance and derailing the normalization process by introducing a 'new weapons system' in the region, and promising to maintain a 'reasonable deterrence in all areas, be it strategic or other weapons and indigenous missile programmes, it was clear that a risky and costly arms race was on, and the process of bilateral dialogue was under serious question if not in jeopardy.[17]

The proposed Indian Nuclear Doctrine Commits India to no-first use of nuclear weapons in case of a conflict. Nor will India threaten or use nuclear weapons against states, which do not possess nuclear weapons or are not aligned with nuclear weapon powers. The categorical and unambiguous commitment to no-first use determines the contours of India's nuclear employment policy. Such a commitment is not just a verbal pledge; it has to be reflected in the structure, deployment and state of readiness of Indian nuclear forces. Except for China, none of the other nuclear forces is at present willing to make such a commitment precisely because of its derivative policy choices. And even China has now qualified its commitment to no first use of nuclear weapons. Thus then Indian

[17] *'Pak Promises tit-for-tat, U.S. Saddened'*, The Hindustan Times, April 12, 1999 'Agni-II has derailed peace process: Sartaj Aziz and Agni: a painful choice, Dawn April12, 1999.

policy of no first use does not have much relevance at present in the Indo Pak nuclear scenario.

The very fact that a nuclear dimension was added to the security matrix of the region has further worsened and significantly complicated the overall security scenario in South Asia, particularly as viewed by the five non-nuclear weapon states (NNWS) of the region. They are concerned about whether India and Pakistan, with a history of deep-rooted hostility and recurrent wars, would be able to properly mange their relationship in a nuclearised security environment. India-Pakistan relations have all along been the decisive factor in shaping the politico-security environment in the region with regard to conflict and cooperation. The stake of the NNWS of the region in peaceful and cooperative India-Pakistan relations has increased because of the danger inherent in nuclearisation.

The impact of the action by India and Pakistan is being felt on the politico-diplomatic as well as economic spheres of inter-state relations in the region. While India and Pakistan remain at the focus of attention, the predicaments faced by the NNWS of South Asia are no less severe. All the NNWS of the region are signatories \to the nuclear Non-Porliferation Treaty (NPT) and Comprehensive Test Ban Treaty (CTBT), hence, committed not to develop or possess nuclear weapons. The challenges faced by the NNWS of South Asia

are multi-dimensional. First of all, they face a physical threat in a nuclear environment that may occur out of miscalculation or mistargetting. However, remote it may be, such a possibility indeed exists in view of the level of technical sophistication in this field attained by both countries. Of equal concern is the physical threat emanating from a nuclear catastrophe, given the existing reliability of the nuclear reactors possessed by both India and Pakistan.

Second, while the danger of physical threat is still hypothetical, the adverse politico-economic consequences of nuclearisation are already impinging upon the aspirations of the NNWS of South Asia for a peaceful and prosperous future. Attaining socio-economic prosperity through cooperation with the regional countries as well as the international community remains at the top of the national agenda of virtually all the NNWS of South Asia. The danger of a nuclear arms race, renewed hostility in India-Pakistan relations and their impact on the SAARC (South Asian Association for Regional Cooperation) process, Western sanctions against India and Pakistan, the risk of the diversion of world attention from South Asia in terms of trade and investment and a host of adverse developments and trends emanating from the nuclearisation, have already shown the adverse impact of nulcearisation on the NNWS.

An Indo-Pak nuclear exchange may no be the result of deliberate strategic planning emanating out of a rational

assessment of factors but rather, may occur as a result of miscalculation and accident is highly probable. The concerns expressed by the NNWS of the region reflect this which is made starker by the proximity factor. It would be well to remember that the "nuclear cloud knows no frontier, it drifts with the wind".

Under the changed circumstances, both the countries would be compelled to divert substantial resources of critical importance for socio-economic development to the nuclearisation programme, while their economies would suffer from the adverse consequences of the sanctions. Such a situation will affect the rest of South Asia in more ways than one. First of all, the national mood in both the countries has already shifted considerably from development to defence, which may have a spillover effect on the regional countries.

In more concrete terms, worsening of economic conditions in the two largest economies is destined to have an adverse impact on their neighbours because of the prevailing multifarious economic linkages among the regional countries. In this regard, radical devaluation of currencies in India and Pakistan is already resulting in the gradual reduction of trade opportunities for the smaller economies of the region.

One of the major implications of the tests is that the Islamic militants play an uncertain role in the Pakistani politics. During the 1999 Kargil crisis, the Pakistan government is effect, admitted that

the militants operated outside the control of the government. If the militant seize power in Pakistan, the danger of nuclear proliferation to radical Muslim countries will increase.

The nuclearisation of the South Asian sub-continent following the nuclear explosions by India and Pakistan, in May 1998 is perhaps the most significant event in the history of South Asia in the Post Cold War period. These nuclear tests vitiated the entire environment of the South Asian region and created a milieu of mistrust in the NNWS of the region.

The volatility caused by the nuclear tests would cease to exist if India and Pakistan agree to resolve all these problems amicably based on peaceful bilateral principles. If the political leadership of these two countries fail to liberate themselves from their past prejudices against each other, nuclear threat will loom large over the region. Therefore, the South Asian countries need to free themselves psychologically from the legacies of the past, which not only generate mistrust and suspicion but also contribute to South Asia's continuing tension and its economic backwardness.

CHAPTER V

CONCLUSION

Nations acquire nuclear weapons broadly for two purposes- for deterrence and for defence. With regard India and Pakistan, they have differing nuclear perceptions and motivations though ofcourse they have common motivation to acquire nuclear weapon capability for security , prestige and influence .

India sees its nuclear weapon as "credible minimum nuclear deterrent", for Pakistan the nuclear tests were conducted "to restore the strategic and military balance in the region" and "were essentially a defensive act".

As has been shown in the previous chapters, the nuclear program and policy of India and Pakistan has evolved over a considerable period of time .The substance of the Indian nuclear policy that took shape early in the international history of nuclear energy development was ; (i) to pursue a many-side nuclear energy program that would be committed to the peaceful non-military use of nuclear energy and , (ii) working politically towards the goal of universal nuclear disarmament .

However, sometime during the course of the 1960's, a different motivation surfaced in the course of the development of

the research side of the programme marked by ambiguity and somewhat conflicting interpretation. This was code worded India's 'nuclear option'. Its basic content was nuclear weapons capability, which the programme certainly attained by the early 1970's. As far as Pakistan's nuclear weapon venture is concerned the realization that India could defeat Pakistan in battle (as it happened in 1971 war) determined her to acquire nuclear weapons , an aim that was expressed in a secret January 1972 meeting convened by Zulfikar Ali Bhutto to launch the Pakistani nuclear weapon programme .

The 'peaceful nuclear explosion' (PNE) experiment of may 1974 was a result of a combination of factors viz., the debacle in 1962 war with china, the hostile attitude of us and china in 1971 crisis. But central to the India's nuclear policy shift was the discriminatory NPT regime.

In the post 1974 period India's posture and actions on the nuclear option were characterized by a mixture of conditional self-restraint and resistance towards the arm-twisting non-proliferation efforts spearheaded by the US. Despite the obstruction, pressures and vacillation, national policy succeeded in preserving its commitment to the peaceful non-military uses of nuclear energy while refusing to sign away the sovereignty of national decision making on the issue. But after following this line for almost 25

years India finally gave a new direction to its foreign policy by detonating five nuclear devices in May 1998.

The test showed that India had made a significant development from the implosion type 'pure fission' design of 1974 to the sophisticated 'boosted fission' and 'thermonuclear' weapons, central to nuclear deterrence.

This raises the question, why India that had showed immense self-restraint over the years decided to go nuclear. There are three primary reasons why India chose to test:

- The non proliferation pressures;
- The increasing size and sophistication of the nuclear capabilities of its regional adversaries, china and Pakistan;
- And, the failure to begin the process of achieving global nuclear disarmament.

India has been a prime target of the CTBT and proposed fissile material cut-off treaty (FMCT). The CTBT was key catalyst in the decision to become the overt nuclear weapon state. The pressures, it generated led every Indian government since 1995 to come close to testing and actually to do so in May 1998.

India's quarter century of nuclear restraint did not help her much. In contrast china the world's biggest proliferator of weapons of mass destruction (WMD) enjoyed favoured access to western technologies. As India was exercising nuclear restraint, China continued to modernise its nuclear and missile arsenals and aid Pakistan's WMD efforts. Pakistan is prominent in Indian strategic planning. Because of its china connection it becomes all the more important.

India's security interests also demanded either that the world moved towards complete nuclear disarmament or that the country weaponised and deployed its nuclear capability. Once the NPT was permanently extended in 1995, making complete nuclear disarmament an illusory goal, India's choice became clear.

In addition to this, there were several other factors which led to the Indian nuclear test in may, 1998 viz; major power ambition, domestic politics, pressures emanating from within the scientific bureaucratic complexes, missile threats from increasing number of countries in the region, the presence of the US nuclear weapons in their Indian ocean base in Diego Garcia, etc..

Pakistan in 1975 accelerated its drive to acquire nuclear weapons capability. This effort had been launched by Prime Minister Zulfikar Ali Bhutto in January 1972, and was being

administered by atomic energy commission chairman Munir Ahmad Khan. Later Dr. A.Q. khan a, metallurgist brought with him stolen designs for the URENCO Ultra centrifuge enrichment plant. With this plan Khan led a massive clandestine international procurement effort to acquire necessary components, material and machinery to assemble the centrifuge enrichment plant at kahuta, which became central to Pakistan's nuclear weapon programme.

Contrary to the India's nuclear enterprise which has been relatively autonomous and self –reliant the most remarkable feature of Pakistan's nuclear weapon programme is covert techniques to obtain blueprints, nuclear materials and components from different part of the world.

Pakistan bases its nuclear option solely on its threat perception vis-à-vis India that is far superior to Pakistan in terms of conventional forces. Precisely because of its inability to match India in conventional weapons, Pakistan considers nuclear capability as a "great equalizer" and worth pursuing by all means. In other words Pakistan has been trying to protect its security vis-à-vis India through nuclear deterrence. After the Indian test of may 1998, Pakistan announced that it had conducted five nuclear tests simultaneously on may 28th and one on 30th the motivations for the Pakistani test were:

- Its security concern vis-à-vis India;
- Domestic constraints;
- National pride;
- Scientific community's pressure;

Pakistan's real concern has been its security. Its major security threats, conventional as well as nuclear, have always been from India. Pakistan was never too worried about a nuclear threat from any of five NWS. However a potential nuclear threat from India could pose serious problems for Pakistan. Nuclear India would be further emboldened to use its greater conventional weapons might for aggressive purposes against Pakistan and intimidate and demoralize the country.

The domestic political compulsions of Pakistan are such that any government cannot ignore the fundamentalist forces for long. The fundamentalists since long have been advocating for an "Islamic bomb".

The national self-esteem of the people of Pakistan as well as the pressures emanating from scientific communities were the other factors responsible for the Pakistani test.

Thus the Indian and Pakistani tests of may 1998 were the result of the interplay of various factors viz; security concern, seeking power status, scientific communities pressure, etc. However there were some immediate provocations on both sides, which ultimately led to the overt nuclearisation of the subcontinent. On April 6, 1998 Pakistan tested the Ghauri missile. The Ghauri test caught India by surprise and forced India's security policy seekers to think seriously due to the missile's capacity to target India's largest cities. For Pakistan the missile test was in part to signal that the BJP could not realise Vajpayee's campaign pledge to "take that part of kashmir that is under Pakistan's occupation". Pakistanis wanted to show that they would not be cowed. Nuclear weapons and ballistic missiles were great equalisers. The talk of "hot pursuit" by the home minister L.K. Advani added fuel to the fire. These developments in 1998 certainly contributed in one way or the other to the nuclear weapon programme of India and Pakistan.

A comparative analysis of the Indian and Pakistani nuclear doctrine would lead us to the following conclusion:

India's strategic perspective for its nuclear doctrine encompasses a wider perspective for south Asia.

India swears by the "no first use" principle. Pakistan is averse to this. It would not give any such guarantees feeling that it negates its deterrence against India.

India's nuclear weapon system will be 'triad' based. Pakistan currently gets limited to land based and aircraft delivery systems.

India's nuclear arsenal will be under civil political control. Pakistan's nuclear weapons will be under defacto control of the army chief.

In sum the Indian and Pakistani tests were aimed at demonstrating their respective strength and power along with the pronounced objective of meeting security needs. The major problems of south Asia emanate from continuing antagonism between India and Pakistan. Since the nuclear explosions by these two countries their old rivalry has taken a new dimension. While Kashmir issue is major hurdle to normalisation of the relations the inadvertent or accidental use of nuclear weapons is a clear danger.

The ramifications of these tests for the regional security can be understood better in this background. Among various implications of the tests the main are:

- In any future conflict between India and Pakistan; India cannot rule out the real possibility that Pakistan when driven to the

wall, will resort to using its nuclear weapons, ignoring the dire consequences, which may result later on. The logic of nuclear deterrence, which was successful in the case of cold-war rivals USA and USSR doesn't seem at work in South Asia in the absence of C_4/I_2 (command, control, communication, computer, information and intelligence).

- There could be a regional arms race with China, India and Pakistan each engaging in a series of build-ups aimed at countering one another's capabilities to ensure the invulnerability of their respective nuclear deterrence.

- The set back in Sino-Indian relations on the one hand and Sino-Pakistani defence and strategic equations on the other would ultimately vitiate the entire environment of South Asia.

- A nuclear endowed India might become more assertive in its policies in relation to the non-nuclear clear smaller neighbours.

- Though at this stage it doesn't seem probable but can't be ruled out for future, that some of the other South Asian countries like Bangladesh and Sri Lanka may go for nuclear option. So there is the long-term danger of proliferation of WMDs in the region.

- Major actors in International relations like USA, and China have got opportunity to play more active role in the region in the name

of mediation and conflict resolution. This doesn't augur well for the security of the region. Already the presence of US nuclear forces in the Indian Ocean poses threat to the region's security. Nuclear tests have further given them a change to enter into the regional politics. They can be more assertive especially in the changed political economic milieu of the region.

- An uncontrolled nuclear arms race would lead sooner or later to unnecessary regional tension in South Asia that may ultimately impede the development of SAARC as a strong regional economic forum in the region.

- Economic sanctions by the western and developed countries against India and Pakistan would automatically slow down investment and commerce in the region as a whole and would naturally have a spill over effect on the economies of Non-nuclear South Asian countries.

- One very important implication is the fear of the nuclear arms being smuggled into wrong hands. There are major terrorist gangs in the region who may get access to some nuclear weapons. It might not be possible for them to have a sophisticated nuclear programme of their own, but possession of even few nuclear arms can prove very dangerous for the countries like Maldives and Bhutan. The formers' security was

already threatened in November 1988 when a group of Tamil mercenaries landed on the shore and tried to topple the government. The vulnerability of a microstate to attack from organized criminal gangs and the dependence of these states on an external power for security poses serious question about the credibility or lack thereof of the nuclear South Asia.

- The recent trend towards religious extremism and religion's role in shaping national foreign policies has brought the question of religious fundamentalism and particularly Islamic fundamentalism in prominence. There are two Islamic states in the region, with one going overtly nuclear, the fundamentalist forces within Islam that were advocating strongly the case for a Islamic bomb may get a boost. It will be detrimental for the security environment of South Asia.

The very fact that a nuclear dimension was added to the security matrix of the region has further worsened and significantly complicated the overall security scenario in South Asia, particularly as viewed by the five non nuclear weapon states (NNWS) of the region. They are concerned about whether India and Pakistan, with a history of deep rooted hostility and recurrent wars, would be able to properly manage their relationship in a nuclearised security environment. India-Pakistan relations have all along been the decisive factor in shaping the politico-security environment in the

region with regard to conflict and cooperation. The stake of the NNWS of the region in peaceful and cooperative India-Pakistan relations has increased because of the danger inherent in nuclearisation.

The impact of the action by India and Pakistan is being felt on the politico-diplomatic as well as economic spheres of inter-state relations in the region. While India and Pakistan remains at the focus of attention the predicaments faced by the NNWS of South Asia are no less severe. All the NNWS of the region are signatories to the nuclear Non-Proliferation Treaty (NPT) and Comprehensive Test Ban Treaty (CTBT), hence, committed not to develop or possess nuclear weapons. The challenges faced by the NNWS of South Asia are multi-dimensional. First of all, they face a physical threat in a nuclear environment that may occur out of miscalculation or mistargetting. However remote it may be, such a possibility indeed exists in view of the level of technical sophistication in this field attained by both countries. Of equal concern is the physical threat emanating from a nuclear catastrophe, given the existing reliability of the nuclear reactors possessed by both India and Pakistan.

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Indo-Pak nuclear exchange may not be the result of deliberate strategic planning emanating out of a rational assessment of factors but rather, may occur as a result of miscalculation and accident is highly probable. The concerns expressed by the NNWS of the region reflect this, which is made starker by the proximity factor. It would be well to remember that the "nuclear cloud knows no frontier, it drifts with the wind".

Under the changed circumstances, both the countries would be compelled to divert substantial resources of critical importance for socio-economic development to the nuclearisation programme, while their economies would suffer from the adverse consequences of the sanctions. Such a situation will affect the rest of South Asia in more ways than one. First of all, the national mood in both the

countries has already shifted considerably form development to defence, which may have a spillover affect on the regional countries. In more concrete terms, worsening of economic conditions in the two largest economies is destined to have an adverse impact on their neigbours because of the prevailing multifarious economic linkages among the regional countries. In this regard, radical devaluation of currencies in India and Pakistan is already resulting in the gradual reduction of trade opportunities for the smaller economies of the region.

New technological developments in weapon and delivery systems have further compounded the nuclear issue in South Asia. It is apparent that if this qualitative arms race is allowed to proceed unchecked, it would, *inter alia*, bring about radical changes in the means of war fighting and in security doctrines, and create a highly complicated regional environment fraught with risks of staggering proportions. The distinctions between tactical and strategic weapons and between conventional and non-conventional weapons would become blurred, leading to a further erosion of all conceivable thresholds. The problems posed are far from simple. Both India and Pakistan would eventually evince interest in the development of high technology weapons and delivery systems. It is neither possible nor desirable to arrest the growth of sciences the technology and, yet, to distinguish or categorise precisely

technology as constructive or destructive is a complex task. Besides, given its vast, highly developed economic/technological/ scientific base, India would find it far easier to develop these systems as compared to the other developing nations of South Asia (including and, in particular, Pakistan) for whom the costs would be prohibitive and the assimilation and management of the systems difficult. Such a development opens up the possibilities of providing India with "hegemonistic capabilities", increasing its predisposition to engage in coercive diplomacy in the region.

Thus the implications of the tests are so severe that we can only wish that the two countries give up their nuclear weapons. However the reality is that no nation, has ever relinquished its nuclear operation, either voluntarily or through regional agreements, after having acquired a nuclear weapons capability. With both India and Pakistan armed with weapons usable fissile materials and nuclear delivery capabilities, it may be difficult to reverse the process of nuclearisation. There are three choices before India and Pakistan

- First, to proceed with weaponisation along with suitable delivery systems to "deter" aggressions as defined separately by India and Pakistan.

- Secondly, to join the non-proliferation regime and sign the NPT and the other instruments of non-proliferation.

- Thirdly, to stop short of deployment of nuclear weapons and enter into a dialogue with each other and with the world community for bringing about de-escalation in both the nuclear and conventional areas.

With regard to the first opinion, a full-fledged nuclear weaponisation, in Pakistan's perception, will depend largely on India because Pakistan has neither the intention nor the resource base to willingly enter into a nuclear arms race with India. If this option is followed, the economic and political costs will be extremely high and perhaps unbearable. There will be a spillover effect into the adjoining countries of South Asia including and, in particular, Iran. The United States of America, China and Russia might perceive the nuclear developments in South Asia as a threat to their strategic interests and offensive nuclear capabilities in South Asia would become targets for monitoring by spy satellites and for suitable action including pre-emptive strikes. Even the world - community at large will have little tolerance for a highly charged and nuclearised South Asia and will devise appropriate measures to discourage and neutralize these developments. In such a climate, it is difficult to visualize any improvement in Indo-Pak relations or a resolution of the ongoing dispute over Kashmir.

With regard to the second option, ideally, after convincingly demonstrating their nuclear capability, India and Pakistan could decide to voluntarily opt out of the nuclear option and make a serious and meaningful attempt to settle their bilateral disputes and differences. This scenario, however welcome, is not likely to materialize in the near future which does not mean that it should not be considered. There are concrete examples of how other countries have done just that reaped the enormous benefits of de-nuclearisation. Brazil and Argentina, considered major rivals in South America, had developed the capability to go nuclear, and had the resource base and the technology to make nuclear weapons and associated delivery systems. Both are among some of the most endowed countries of the world and could perhaps afford to pay the price of nuclearisation. Yet, instead of wasting their resources in a nuclear arms race, the two countries entered into a dialogue and decided that it was better for their security and development to abjure nuclear weapons. Since then, the two countries are beginning to flourish economically and can look forward to a more prosperous future.

It is true that India and Pakistan cannot reconcile their differences so easily or speedily because their conflict and suspicion goes way back into history. But their leaders have to stop idealizing the past and begin building the future. Peace between India and

Pakistan could bring prosperity to one-fifth of the human race and be a source of stability in the world. Both could join hands together to help open the vast resources of energy and mineral wealth of Central Asia to the world with great benefit to themselves as well as to the whole region. This could also bring a gleam of hope to the eyes of the wretched masses of the subcontinent who have begun to believe in living with despair and poverty as their ordinate fate. The nations of South Asia (India and Pakistan, in particular) need to work out a regime of regional cooperation in this field that effectively checks the qualitative arms race and directs the new and emerging technologies towards peaceful purposes.

With regard to the third option, it appears that most likely scenario will be that India and Pakistan would decide to keep their weapons and slowly develop their nuclear arsenals because, politically, it is difficult to step away from the nuclear weapons path after the heady euphoria of detonation and glorification of the "bomb".

It may be possible to go down this road for a while but not indefinitely. The world community has begun to turn against nuclear weaponry, and even the major nuclear powers are beginning to realize the futility of nuclear arsenals, which seem in this age and era to have no practical military utility. The G-7 countries along with Russia are getting mobilized to stop the

nuclear escalation in South Asia, which may some day engulf them also in a nuclear confrontation. These countries are likely to work more actively on their agreed agenda of insisting that India and Pakistan should not enter into nuclear arms race, not weaponise and deploy nuclear weapons, stop nuclear tests, terminate development of nuclear capable missiles, reduce tensions, and resolve their disputes (including the Kashmir dispute) through peaceful negotiations. They do not seem willing to be silent spectators while the subcontinent drifts towards a possible nuclear confrontation and economic disaster. The May 1998 nuclear blasts by both countries have suddenly brought about a realization that South Asia has acquired the dangerous potential for initiating a nuclear conflict at regional and global levels, which the world so desperately would wish to avid. Ironically, it seems that the very act of nuclearisation will bring into pay forces of mediation, disengagement and reconciliation to ultimately bring peace to this troubled region.

In sum, the fact of the matter is that, at best there can be possibilities of a weapon control not a weapon free nuclear -regime in South Asia. Even the arms-control approach is likely to make little or slow progress. The real border between India and Pakistan lies in the political realm. Non-proliferation initiatives can be advantageously pursued only in tandem with proposals aimed at

allaying regional political - tensions and apprehensions. This is not to belittle the efficacy of confidence building measures or the de-escalation of tensions through the dialogue process. For, there is clear realization among the leaders of South Asia that a great danger of regional weapons (including nuclear) proliferation would be that it might run counter to the historic process now underway of great power reduction of nuclear weapons.

India and Pakistan have such different and irreconcilable perceptions of their own role in South Asia that contrary to attempts at arms control more realistic approach might well be to recognize that, until Indo-Pakistan relations have normalized, both countries should have the freedom to acquire weapons to safeguard what each side perceives to be its legitimate security concerns. In the short term, arm racing is inevitable, and may arguably be beneficial in maintaining peace through the operation of a South Asian deterrence. In the long run, the disputes must be resolved and the roots of inter state conflict eliminated. No Third World Country not least of all India and Pakistan can afford to legitimise armed peace through arms control.

However, the recent development on the borders (heavy deployment of armed forces on both sides of the borders) is alarming. Both countries are at a high level of military mobilization an expensive and possibly dangerous state of affairs. The relations

between the two counties cannot improve as long as India harbors doubts about Pakistan's commitment to peace, and Pakistani policy makers remain anxious about Indian policies.

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