

**NUCLEAR NON PROLIFERATION IN SOUTH ASIA  
WITH SPECIAL REFERENCE TO  
INDIA AND PAKISTAN**

*Dissertation Submitted in Partial Fulfilment of the  
Requirements for the Degree of*

**MASTER OF PHILOSOPHY  
IN  
POLITICAL SCIENCE**

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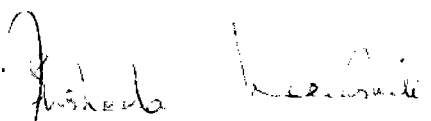
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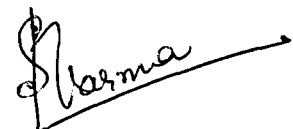
**1995**

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**C E R T I F I C A T E**

I have the pleasure to certify that Miss Chandramukhi Sharma, an M.Phil student of the Department of Political Science, University of Delhi, has pursued her research work and prepared the present dissertation entitled : "**NUCLEAR NON-PROLIFERATION IN SOUTH ASIA WITH SPECIAL REFERENCE TO INDIA AND PAKISTAN**" under my supervision and guidance. The present dissertation is the result of her own research and to the best of my knowledge no part of it has earlier comprised any other monograph, dissertation or book. This is being submitted to the University of Delhi for the degree of MASTER OF PHILOSOPHY in Political Science in partial fulfilment of the requirements for the said degree.

  
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*To  
My Parents*

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## ABBREVIATIONS

<b>BDM</b>	Ballistic Missile Defence
<b>CCD</b>	Committee on Comprehensive Disarmament
<b>DAE</b>	Department of Atomic Energy
<b>HWR</b>	Heavy Water Reactor
<b>IAEA</b>	International Atomic Energy Agency
<b>ICBM</b>	Intercontinent Ballistic Missile
<b>INF</b>	Intermediate Range Nuclear Force
<b>MIRVS</b>	Multiple Independently Targettable Re-entry Vehicles
<b>MRBMs</b>	Medium Range Ballistic Missiles
<b>NNPA</b>	Nuclear Non-Proliferation Act
<b>NPT</b>	Non Proliferation Treaty
<b>NWFZ</b>	Nuclear Weapon Free Zone
<b>PAEC</b>	Pakistan Atomic Energy Commission
<b>PINSTECH</b>	Pakistan Institute of Technology
<b>PNF</b>	Peaceful Nuclear Explosion
<b>RAPP</b>	Rajasthan Atomic Power Project
<b>TAPS</b>	Tarapur Atomic Power Station

## P R E F A C E

The issue related to nuclear weapons and proliferation has become increasingly complex. A simple approach to perceive non proliferation merely in terms of the 'Non Proliferation Treaty' (NPT) is no longer adequate. This dissertation, **Nuclear Non-proliferation in South Asia, with Special Reference to India and Pakistan**", attempts to study the issue of nuclear proliferation in the Indian subcontinent vis-a-vis Indian and Pakistani perceptions. Both countries have been considered likely candidates for proliferation. They both have a relatively advanced nuclear industry which could be diverted into a nuclear weapon programme. Both continue to keep their nuclear options open by refusing to accept an international or regional non proliferation regime. Moreover, India and Pakistan have been engaged in a number of wars and their bilateral relationship has been constrained by distrust, adversarial relations, and the persistence of unresolved disputes. Furthermore, this uneasy relationship has been entangled with other regional as well as international disputes and rivalries.

Yet, despite these indications of an imminent threat of proliferation in the sub<sup>l</sup>-continent, neither country has so far officially admitted to going nuclear - India maintains that its nuclear policy is non

## C H A P T E R - I I

### INDIA'S NUCLEAR POLICY

No country in the world has debated the question of going nuclear as intensely and far as long a period as India. The debate has been going on for more than two decades and continues to do so.

Before the debate began in the sixties, India had a stable and coherent nuclear policy for nearly ten years. That policy had been defined by Jawaharlal Nehru. Its origin lay in the Gandhian tradition and ideal of non violence, which was also part of the heritage of the Indian freedom struggle. Nehru had a genuine horror of the nuclear, menace and believed that India, while developing nuclear energy for peaceful purposes, must never go in for nuclear weapons.

This chapter looks at the overall development of Indian nuclear program. Factors which may have helped Indian decision makers to resist the temptation to go nuclear. The strategic consequences of possible Indian nuclear weapons on the country's relations with the neighbour's specially Pakistan, India's stand on the NPT and its role in the fourth coming extension conference will also be examined.

Atomic Energy represents a significant break through in science and technology. It promises the possibility of a new industrial revolution for India.<sup>1</sup>



facilitate or hinder a weapons programme; (e) What are the domestic, regional and international considerations behind each country's existing nuclear policy? (f) How far does India's stand on South Asia as a nuclear weapons free zone differ with that of Pakistan? and (g) What could be the implications of each country's nuclear weapons programme be on the other's strategic perceptions?

Dates and facts concerning the two states' nuclear industry have been included wherever relevant but the study focuses on the political and strategic aspects. A key assumption here is that political and strategic considerations are more pressing in nuclear decisions than technical capabilities.

There are two main schools of thought among the non proliferation analysts (apart from an interesting but isolated view that regards nuclear proliferation as being a potentially positive development). The first assumes that proliferation is inevitable and that all countries will sooner or later go nuclear. For this group the question is not how to affect the course of proliferation but how to cope with the prospect of nuclear weapons in different quarters of the globe. The Second School holds the view that proliferation is not inevitable and can be halted. Among the latter group there are divergent opinions regarding measures to prevent proliferation. Some view a treaty such as the

NPT as adequate for this purpose. Some believe that such a treaty aided by restrictions on the spread of sensitive nuclear technologies, taking into account the political and military incentives, could halt proliferation. Then there are those who believe that a treaty such as the NPT is a hypocritical attempt on the part of the nuclear weapon states (NWS) to halt proliferation in Non Nuclear Weapon States (NNWS) without attending to the real question of the nuclear arms race among Nuclear Weapon States (NWS). This view is voiced by some Non Nuclear Weapon States. (NNWS), and by India in particular. But there are also those who see a non proliferation treaty such as the NPT as a pact among non nuclear weapon states themselves.

The reality of nuclear proliferation in the subcontinent is however, too complex to make any straight forward explanation possible. While nuclear proliferation in India and Pakistan is not inevitable, it is certainly not a simple matter which can either be ignored or easily traded off. While a large part of this study is based on the secondary sources, but some important primary sources have also been consulted. Though interviews with Indian officials, strategists, and journalists were stimulating and provided useful background information, they are not quoted specifically in this study.

This study is divided into five chapters. The first Chapter, **"Conceptual Background; Nuclear Proliferation and Nonproliferation"** deals with the problem of proliferation of nuclear weapons in the world and South Asia in particular. It is extremely important to understand the concept of nuclear non proliferation. The major queries addressed in the Chapter relate to the following - why nations opt for nuclear status? What are their motivations and compulsions? How far does the theory of deterrence impact upon the accumulation of nuclear weapons? The nuclear non proliferation treaty of 1968 which aims for the prohibition of the proliferation of nuclear weapons has been dealt with in detail in this chapter finally the state of nuclear proliferation in South Asia and its Global implication have been examined.

Chapter two, **" India's Nuclear Policy"**, Deals with the Indian nuclear initiative. As India was the first Country to utilize nuclear energy for peaceful purpose in South Asia, starting with the basic premieses of India's nuclear policy under Nehru, the Chapter Focuses on the changing nuances of India's nuclear perceptions, according to the changing regional or global conditions. It's post 1974 nuclear posture without further explosions and without any public plans to build nuclear deterence before the Pakistani and chinese nuclear

threats. India's stand on the NPT namely 'Global elimination of nuclear weapons', which formed the Crux of India nuclear policy, has been studied at length.

Chapter three **"Pakistan's nuclear programme"** deals with Pakistan's nuclear policy as well as its capability. Its acquisition of nuclear weapons of the first generations type, using enriched uranium, developed in Kahuta, and its acquisition of nuclear weapons through clandestine means, exploding crude nuclear device in a national and a foreign site and branding it as peaceful explosion, and, its current threshold status, threatening India with a nuclear arms race are the various aspects ( of Pakistan's Nuclear Policy) that have been examined

Chapter four **"Concept of a Nuclear Weapon free zone in South Asia"** deals with South Asia as a nuclear weapon free zone. Since 1974 Pakistan has been moving resolutions every year in the U.N. General Assembly for declaring South Asia as a nuclear weapon free zone. Certain questions like what is nuclear weapons free zone? and on what basic principles are these zones based?, have also been dealt with in detail. The chapter also focuses on the Indian and Pakistani approach to a nuclear weapon free zone in South Asia. The Indian approach to nuclear weapon free zone, is not confined to South Asia. India considers China as the major threat to the region. India favours the inclusion of China as a party to the nuclear weapon free zone.

The fifth chapter deals with the concluding part of the

study. It attempts to make a prospective assessment of the nuclear related development in India and Pakistan. The reasons for proliferation in the subcontinent, and the present state of nuclear industry in both the countries have been analysed. The conclusion focuses on the differing stands of the two countries with regard to the NPT Extension Conference (1995) and the options before both countries for their respective nuclear programmes.

I would like to express my heartfelt gratitude and indebtedness to all those people whose consistent support enabled me to succeed in my endeavour. I owe my sincere gratitude to my supervisor, Dr. Shanta N. Verma who gave me extremely valuable comments and encouragement which helped me from the outset. I would also like to express my thanks and gratitude to Air Cmdr. Jasjit Singh (Director I.D.S.A.) for his extremely valuable comments, on the whole N.P.T. issue. I express my thanks to Mr. O.P. Bhadula and the "AKRITI GROUP" for typing this dissertation. The Library of Indian Council of World Affairs, The Teen Murty Library, Institute for Defence Analysis and the Central Reference Library, University of Delhi provided me facilities for working on this dissertation. I thank the staff of these libraries for their co-operation.

My warm appreciation and thanks are due to my parents, other members of my family and my close friends for their co-operation, attitude and moral support. Last but not the least, God's grace has always been with me.

I would like to add that the idea expressed in this study are mine and I am responsible for any mistake or omission.



**CHANDRAMUKHI SHARMA**

## C H A P T E R - I

### CONCEPTUAL BACKGROUND: NUCLEAR PROLIFERATION AND NON PROLIFERATION

Among the many factors that have influenced the course of international politics and diplomacy in the last four decades, a most crucial one has been the nuclear issue. Ever since the advent of nuclear weapons, whose destructive power was so convincingly demonstrated at Hiroshima and Nagasaki in 1954, they have become a symbol of power and prestige among the nations of the world, and possession of nuclear weapons has been given special status in the international power hierarchy.

The Nuclear Non Proliferation Treaty (NPT), which has as its main objectives, the prevention of proliferation of technology to make nuclear weapons has been in force for the last two decades. The success of this Treaty, however, appears to have been only partial. Probably a dozen countries of the world have the knowledge to put together nuclear devices leading to weapons acquisition capability. However, after China in 1964, no power has gone overtly nuclear. The legitimate nuclear club is still confined to five nations who also happen to be the permanent members of the United Nations Security Council. Since the transition of the world from bipolarity to the end of the Cold War

multipolarity, and especially after the formal End of the Cold War in November 1989, the G-five, as these nations are called, have started acting as a board of directors of a Corporate World. The unelected Chairman of the board is the United States of America.

The Proliferation scenario has a number of sharp contradictions. On the one hand, at least two powers, Israel and South Africa, are known to have developed nuclear weapons without declaring themselves to be nuclear powers. At another level, India and Pakistan have built nuclear weapons capability. 'Capability' does not merely mean the technological ability to make devices. It seems to mean that both countries have actually made some devices but both deny the production of nuclear weapons by them. However, weaponisation will probably take just about six months if the political decision to do so is taken. Today, around this existing capability, both India and Pakistan are now building the scaffoldings of weapons power missiles carrier system, a Command Control System, a nuclear doctrine and a continuing refinement of nuclear programme.

The word 'Proliferation' borrowed from biology, means growth by rapid production of new parts, cells, buds or off springs. The concise Oxford Dictionary defines 'proliferate' as reproduce itself, grow by multiplication of elementary parts, increase rapidly. The term, when applied to nuclear field, does not have the generally agreed definition or interpretation. Thus, the Nuclear Non



Proliferation treaty defines, by implication, proliferation as the manufacture or acquisition of nuclear weapons or other nuclear explosive devices by countries which do not at present possess them. However, as K. Subrahmanyam says, "Nuclear Proliferation is essentially a problem relating to those countries which are multiplying nuclear weapons rapidly both in qualitative and quantitative terms. It is an abuse of the English language to term acquisition of few weapons by a new country as proliferation." <sup>1</sup> A proper understanding of the concept of nuclear proliferation involves taking into account both the categories of proliferation, namely, horizontal and vertical. 'Horizontal Proliferation' refers to acquisition of nuclear weapons by a country which hitherto has not been in possession of these weapons. 'Vertical Proliferation' means qualitative improvement and multiplication of nuclear weapons.

#### **Decisions to Initiate Nuclear Weapons Programmes**

In pursuing the question of why nations "go nuclear", the pivotal point in nuclear proliferation is the decision to pursue nuclear weapons acquisition - not having the first weapon actually in hand. In order to understand the nuclear proliferation process, it is crucial to know the distinction between a capability decision and ultimately possessing functional nuclear weapons, yet they are often glossed over or altogether ignored. Nations may acquire the fundamental capability to produce nuclear weapons by intentional support or as an unintended by product of

industrial and Economic development. In the former case they make an explicit government decision to develop a latent capacity that provides an indigenous capability to implement and support a nuclear weapons programme. A capability decision may occur before or in conjunction with proliferation decision. A capability decision in the absence of a proliferation decision reflects the development of "a nuclear option", enhancing a nuclear option and keeping a nuclear option open.<sup>2</sup> The Bhutto government of Pakistan is reported to have made simultaneous proliferation and capability decisions in the early 1970s. Pakistan set about developing a latent capacity first by attempting to import a commercial reprocessing facility, then by attempting to import a commercial reprocessing facility, then by covertly acquiring uranium enrichment technology, with its proliferation decision still in force, Pakistan is going ahead with weapon programme. Thus it is obvious that capability decision in isolation keeping the nuclear option open are not equivalent to capability decision that follow from proliferation decision to get the bomb.

Regardless of how a country acquires a latent capacity, the main thrust of the nuclear proliferation process is the acquisition of functional nuclear weapons, something that could come about only from an explicit government decision - a proliferation decision to transform a latent capacity into an operational capability. Nuclear weapons do not generate spontaneously from stockpiles of

fissile material. Thus the decision to go nuclear is the crucial step in the nuclear proliferation process<sup>3</sup>."

### **Motivations for Acquiring Nuclear Weaponry**

Decision to initiate nuclear weapons programme can be understood in the context of three basic categories of incentives international political power/prestige incentives military/security incentives, and domestic political incentives. Under the influence of these particular motive conditions, a country may pursue its nuclear option to enhance its status and position in the eyes of other countries whether within the context of an alliance or a regime or at the global level, here the incentives to become a nuclear weapons country stem from the belief that such weapons somehow magnify a nations image. In this respect, the extent to which possessing nuclear weaponry, actually does enhance a nation's image may be less important than what the prospective country behaves is true. For global power pretenders eyeing permanent membership on the United Nations Security Council or a pariah country isolated on the pinge of international activity, the apparent utility of nuclear weaponry may be substantial.

The second set of motive conditions is associated with military/security incentives. Confronted with a military threat from one or more foreign powers, the prospective nth country, might turn to the nuclear option in the hope of bolstering its military capabilities, whether for actual war use or far deterrence, the acquisition of

nuclear weapons may seem to represent a viable answer to a variety of military threats.

The third group of motive conditions is mostly closely associated with incentives derived from domestic political considerations. That is to say the decision stimulus originates within the domestic context with the launching of the nuclear weapons program intended to affect internal or external conditions. Thus nuclear weapons became a form of domestic political currency. In this respect one must recognise that to some extent the effects of all the motive conditions will be filtered through domestic political system before a policy decision is made. Therefore, all the motive conditions are in the same way tied to domestic politics.<sup>4</sup>

### **The Concept of Nuclear Deterrence**

In absolute terms, nuclear weapons of even small yields can cause substantial damage, but whether such a damage is beyond repair, unacceptable or capitulating etc. depends on the size and resilience of the victim. The same level of damage may have different impact on different countries and societies. A bomb at Hiroshima was perhaps not enough for Japanese. Three days later, another bomb had to be dropped at Nagasaki to precipitate Japanese surrender. In the context of Indian sub-continent for instance, the destruction of one city (Karachi) may be more capitulating for Pakistan than the destruction of a corresponding city

(Bombay), would be for India, as India is nine times larger country. In the Indo-Pakistani context, the resilience level in the two communities could be taken to be the same. There is substantial insensitivity in the two political systems to misery and human life. Despite all this, it is expected that the politicians in both the countries would be reluctant to risk the kind of damage which is wrought by nuclear weapons, especially to the economic activities and structure. Further-more the balance of resolve would work against the party attempting to change the status quo and in favour of the one which attempts to maintain the status quo. Therefore, a Pakistani nuclear threat would be less credible and successful if it is meant to liberate the Indian part of Kashmir, similarly an Indian nuclear threat would be less effective, if it is meant to liberate Pakistan occupied Kashmir.<sup>5</sup>

Pre-emption may not be successful in a rudimentary competition. Aerodynamic delivery vehicles (fighter-bomber planes) can survive a first strike amply well. There could be so many locations in a country where these could be hidden and kept safe with or without nuclear weapons. A first strike may capitulate a society in general by inflicting substantial damage or exhausting the will to fight any longer, but it cannot possibly totally destroy weapons. A missile force by the virtue of being fixed in location is more vulnerable to first strike than the widely and dispersed planes-that is strategic air command planes force is still in the age of MIRV (Multiple Independently

Targetable Re-entry vehicle). Thus in a low level nuclear competition, the deterrence conditions maybe fairly stable and effective, there is the possibility of affecting unacceptable damage on the enemy and of surviving a retaliatory second strike by the enemy.<sup>6</sup>

Indo-Pakistan nuclear competition may not stabilize at a low level, as it is not a closed subsystem. Infact, it is a part of a chain of competition whereby every link is motivated by its higher links but eventually affects the lower link. The chain is US-Russia-PRC-India-Pakistan or in reverse Pakistan-India-PRC-Russia-US. There is an upward pull towards enhanced nuclear capabilities in this strategic chain relationship. If proportionate deterrence gets established as a viable nuclear strategy, India might settle for a nuclear capability only a fraction of the corresponding PRC capabilities. In turn Pakistan may settle for a fraction of India's nuclear capabilities, resulting in modest requirements in terms of the number and yields of nuclear warheads and delivery vehicles.

But if 'Nuclear Parity' somehow becomes national objective in this strategic chain relationship, an unbridled nuclear arms race with devastating consequences for national economics might result. It should be noted that proportionate deterrence essentially would rely on counter-value or city busting strategy and should deterrence somehow fail, the consequences would be catastrophic.<sup>7</sup>

### Non Proliferation: Historical Background

As far as theoretical aspect of nuclear non-proliferation is concerned, the genuine objective policy is to maintain separation between peaceful and non peaceful uses of nuclear energy and to ensure that the access to the peaceful benefits of nuclear technology does not increase the risk of weapon spread. In practice as Joseph S. Nye rightly concludes, "ever since 1945 the policy makers have realized that the distinction between nuclear power for weapon purposes and for peace is a question of politics and not physics"<sup>9</sup>. The nuclear haves have made desperate attempts to retain the monopoly of nuclear weapons. The have nots in term, have made efforts to break this monopoly. The entire policy of non-proliferation revolves around this tussle.

### The Non Proliferation Regime

The non proliferation regime consist of norms and practices found in the Non Proliferation Treaty and its counterparts like the Treaty of Tlatiloco, the issue of safeguards, rules and procedures of the International Atomic Energy Agency and the various UN resolutions, including the one on nuclear weapon free zones.

The first efforts at the regimes creation dates back to November 1945 when President Harry S. Truman of the United States, Prime Minister Attlee of the U.K., Prime Minister W.L Mackenzie and King of Canada, met in Washington

and adopted a declaration on atomic energy which set forth basic principles dealing with the problems raised by the discovery of atomic energy.<sup>10</sup>

The next step was taken in 1946 when the United States came up with the Acheson Lillienthal Plan, otherwise known as the Baruch Plan. The Plan, though adopted by the General Assembly in November 1948, failed to make much headway mainly because of the US-USSR rift. In June 1946, Andrei Gromyko proposed a counter plan called the Gromyko Plan, which sought a draft convention for the prohibition of production, storage and use of atomic weapons and for the destruction of all such weapons within three months of the plan being enforced.<sup>11</sup>

In fact after the failure of the Baruch Plan there was no significant initiative in the field of atomic energy for several years. Meanwhile, the USSR succeeded in September 1949 in exploding an atomic Bomb, thus becoming the second nuclear power. Great Britain exploded its first atomic bomb in 1952. The United States exploded its first hydrogen bomb in November of the same year and in August 1953 the Soviet Union followed suit. Thus, the policy of denial failed to prevent the first wave of weapon proliferation in the USSR, Britain and France. It failed because all these countries had a long history of enterprise in nuclear sciences. In fact, as explained earlier, the U.S. monopoly acted as a stimulant.

These early experiments demonstrated the Central



weakness of the Non-Proliferation policy - measures to control the spread of nuclear materials had limited chances of success if the political and strategic environment were such that nations desired weaponry for their security. William Walker and Manns Lonroth have rightly said that "provided the basic skills are there, the technological barriers are not insurmountable."<sup>12</sup>

On December 8, 1953, the Atoms for Peace programme was announced by President Eisenhower in his speech in the General Assembly.<sup>13</sup> The Atomic Energy Act was passed in 1954 to give free reign to scientific and industrial enterprise.

The Central accomplishment of the Atoms for peace proposal was the Creation of a system of international safeguards and industrial framework in the form of the International Atomic Energy Agency (IAEA), established in Vienna in 1957 under the IAEA system, the non nuclear weapon powers agreed to file with the agency regular detailed reports on nuclear facilities to check the diversion of nuclear material from civilian to military purposes.

From 1962 onwards, the US began transferring from its own Atomic Energy Commission to the IAEA the responsibility of administering the safeguards. Since then, the safeguards have evolved and the institution, IAEA, has explained several times.

The US European multilateral force which was under negotiation in the mid 1960s was seen by the Soviets as a threat equal to proliferation itself. Hence, the USSR began

to give the IAEA its whole hearted support. Not only did it lend support to the IAEA, but sought, together with the USA, peaceful assurances from countries whose nuclear intentions it feared. This gave rise to the two successive treaties of Non-Proliferation (1) Partial Test Ban Treaty of 1963, and the Nuclear Non Proliferation Treaty of 1962 which forms the core of Non Proliferation regime. The Antartica Treaty of 1959 provided for the demilitarization and denuclearization of Antartica and specifically prohibited any nuclear testing or disposing of radio-active waste material there. The outer space Treaty of 1971 provided for denuclearization of the seabed, the Ocean floor and the sub soil thereof. These treaties can in a sense be regarded as non-proliferation limited to the areas concerned, but since those areas are not inhabited regions and no governments are located there, they have been left aside while considering the structure of the Non Proliferation regime.

The nuclear test ban issue came up for discussion in 1954 mainly on India's initiative. India pursued a very active diplomacy till the signing of the Partial Test ban Treaty in August 1953. While the western countries wanted to treat nuclear test ban as a part of the general disarmament plan with an emphasis on the verification system India wanted to treat it as an independent issue, one which should be considered on its own merit, and abstained from the resolution on international control.<sup>14</sup> Pakistan, to begin with, supported the west till the ascent of Ayub Khan.

After 1959 India and Pakistan adopted an almost uniform pattern of voting.

In the event of the deadlock on the question of detecting underground tests, the western powers advocated a treaty banning nuclear weapon tests in the atmosphere, in outer space and under water. Negotiations began in Moscow on 15 July 1963 and the PTBT was signed there on 5th August 1963 by the US, the UK and the USSR. Essentially, the treaty prevented the parties from carrying out any nuclear weapon test under its jurisdiction or control: (a) in the atmosphere beyond its limits, and (b) in any other environment if such an explosion caused debris to be present outside the territorial limits of the state under whose jurisdiction or control such explosion is conducted, without prejudices to the conclusion of a treaty resulting in the permanent banning of all nuclear test explosions.

"It asked the nation states to refrain from causing, encouraging or in any other way participating in a nuclear weapon test."

The idea of a Non Proliferation Treaty was mooted by the United States to include potential industrial powers. Such as Japan and West Germany, which might pose a threat by acquiring nuclear weapons. The USSR also supported the move. The idea of a Non-Proliferation Treaty is contained in an Irish proposal made in 1958. The treaty was finally put to vote in April/June 1968 General Assembly session (Discussed in detail further in the same chapter).

Another constituent of the regime is a step by

step approach to nuclear weapon free zone, which are zones recognized as such by the United Nations General Assembly that any group of states, in the free exercise of their sovereignty has established by virtue of a treaty or convention.<sup>15</sup>

### **The Nuclear Non Proliferation Treaty**

The Non-Proliferation Treaty which came into effect in 1978 obligated its signatories "not to manufacture or otherwise acquire nuclear weapons or other explosive devices." The treaty signed by the USA and USSR and England was designed to "prevent non nuclear countries from developing nuclear weapons capacity."<sup>16</sup> Two categories of countries have agreed to accept and ratify the provisions of the treaty:

- (1) Those not capable of manufacturing nuclear armaments, and
- (2) Those that are dependent upon nuclear powers for their national security.

But a country like India, which is capable of developing nuclear weapons, has not accepted the treaty. India and other non signatories have clear and convincing reasons for not accepting the NPT. In most of these countries there is an element of isolation, insecurity, local rivalry and ambition.<sup>17</sup>

In India's view, the treaty seeks to disarm the unarmed following the armed to keep arming. "The NPT would cage the puppy of horizontal proliferation while leaving the

tiger of vertical proliferation free to maraud the world. It sounds illogical that non-nuclear weapon states are being bullied to renounce acquisition of military weapons while weapon states have been asked to share any obligation when India detonated nuclear device in Rajasthan desert on 18th May 1974, there was an unprecedented 'public outcry' against it in the western media. India made her stand clear by proclaiming that it was a peaceful device. The USA and other western countries are aware of this fact that nuclear programmes undertaken by India are fully justified in the light of her industrial needs and economic compulsions. But their basic argument is that nuclear proliferation, if not halted at this stage, would create unimaginably the problem of balancing the nuclear deterrence. The Super Powers maintain that they have been able to stabilize the balance through "mutual deterrence". But they cannot guarantee the conditions of peace if more developed and more developing countries in an effort to ensure their national security may behave irresponsibly in the employment of nuclear weapons, not only this the nuclear powers may employ deadly weapons even in regional and localized conflicts and thus enhance the risk to global security. Therefore, super powers plead that "have not countries ought not to insist on acquiring nuclear capability in the interest of a just and equitable world order."

The operative Articles of the NPT are -

**Article I:**

Each nuclear weapon state party to the Treaty undertakes not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly or indirectly; and not in any way to assist, encourage or control over such weapons or explosive devices.

**Article II:**

Each non nuclear weapon state party to the Treaty undertake not to receive the transfer from any nuclear weapon state whatsoever of nuclear weapons or other nuclear explosive devices or of control over such weapons or explosive devices directly or indirectly; not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, and not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices.

**Article III:**

(a) Each non-nuclear weapon state, party to the treaty undertakes to accept safeguards, as set forth in any agreement to be negotiated and concluded, with the international Atomic Energy Agency in accordance with the statute of International Atomic Energy Agency's safeguards system, for the exclusive purpose of verification of the

fulfilment of its obligations assumed under this treaty with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other explosive devices. Procedures for the safeguards required by this article shall be followed with respect to sources or special fissionable material whether it is being produced, processed or used in any principal nuclear facility. The safeguards required by this article shall be applied on all sources or special fissionable material in all peaceful nuclear activities within the territory of such state, under its jurisdiction, or carried out under its control anywhere.

(b) Each state party to the treaty undertakes not to provide: (1) sources or special fissionable material or (2) Equipment or material especially designed or prepared for the processing, use or production of special fissionable material, to any non-nuclear weapon state for peaceful purposes unless the source or special fissionable material shall be subject to the safeguards required by this article.

(c) The safeguard required by this article shall be implemented in a manner designed to comply with Article IV of the treaty, and to avoid Rampering the economic or technological development of the parties or international cooperation in the field of peaceful nuclear activities, including the international exchange of nuclear material and equipment for the processing, use or production of nuclear material for peaceful purposes in accordance with the provisions of this article and the principle of safeguards

set forth in the preamble of the Treaty.

(d) Non nuclear weapon states party to the treaty shall conclude agreements with the International Atomic Energy Agency to meet the requirements of this article either individually or together with other states in accordance with the statute of the International Atomic Agency. Negotiations of such agreements shall commence within 180 days from the original entry into force of this treaty, for states depositing their instruments of ratification or accession after 180 days period, negotiation of such agreements shall commence not later than the date of such deposits. Such agreements shall enter into force not later than eighteen months after the date of initiation of negotiations.

**Article IV:**

(a) Nothing in this treaty shall be interpreted as affecting the inalienable right of all the parties to the treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with Article I and II of this treaty.

(b) All the parties to the treaty undertake to facilitate and have the right to participate in the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy. Parties to the treaty in a position to do so shall also cooperate in contributing alone or together with other states or international organization to the further



development of the application of nuclear energy for peaceful purposes, especially in the territories of non-nuclear weapon states party to the treaty with due consideration for the needs of the developing areas of the world.

**Article V:**

Each party to the treaty undertakes to take appropriate measures to ensure that in accordance with the treaty, under appropriate international observation and through appropriate international procedures, potential benefits from any peaceful applications of nuclear explosions will be made available to the non-nuclear weapon states party to the treaty on a non-discriminatory basis and that the charge, for the explosive devices used will be as low as possible and exclude any charge for research and development. Non-nuclear weapon states party to the treaty shall be able to obtain such benefits pursuant to a special international agreement or agreements, through an appropriate international body with adequate representation of non-nuclear weapon states. Negotiations on this subject shall commence as soon as possible after the treaty enters into force. Non-nuclear weapon states party to the treaty so desiring may obtain such benefits pursuant to bilateral agreements.

**Article VI:**

Each of the parties to the treaty undertakes to pursue

negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control.

**Article VII:**

Nothing in this treaty affects the right of any group of states to conclude regional treaties in order to assure the total absence of nuclear weapons in their respective territories.<sup>18</sup>

Even as the Treaty was to be voted upon, Ambassador Mohammed Azim Hussain of India made the following points at the 57th meeting of the First Committee of the United Nations on 14th May 1968:

(1) The treaty did not ensure the non-proliferation of nuclear weapons but only stopped the dissemination of weapons to non nuclear weapon states without imposing any curbs on the continued manufacture, stockpiling and sophistication of nuclear weapons by the existing nuclear weapon states;

(2) The Treaty did not do away with the special status of superiority associated with power and prestige conferred on those powers which possessed nuclear weapons.

(3) The Treaty did not provide for a balance of obligation and responsibilities between the nuclear weapon states and

non nuclear weapon state. While all the obligation were imposed on non -nuclear weapon states, the nuclear weapon states had not accepted any.

(4) The Treaty did not constitute a step-by-step approach towards nuclear disarmament.

(5) The Treaty did not prohibit one nuclear weapon state from assisting another nuclear weapon state by providing technical aid.

(6) The long period of a quarter of a century provided in Article X of the Treaty would appear to endorse and legitimize the present state of affairs and legalise, if not encourage an unrestricted vertical proliferation by the present nuclear weapon powers.

(7) Article VI did not create a jurisdictional obligations in regard to the cessation of nuclear arms race at an early date.

(8) The Treaty imparted a false sense of security to the world.

(9) The Treaty was discriminatory in regard to the peaceful benefits of nuclear explosions.

(10) The Treaty was discriminatory in regard to the safeguards and controls which were all imposed on the non-nuclear weapon states while none whatsoever were imposed on the nuclear weapon states.

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(11) The security assurance to non-nuclear weapon states could not be a quid pro quo for the acceptance of the Treaty. This must be obligatory for the nuclear weapon states.

A realistic approach to non-proliferation would have been to start by disabusing participants from the notion that possession of nuclear weapons conferred some kind of prestige or special status to the nuclear powers. In fact, the NPT did just the opposite all the obligations were imposed on the non-nuclear weapon states and, particularly, by exempting the nuclear weapon powers from even observing the prescribed safeguards, the Treaty accorded them a permanent privileged position in the world community. Furthermore, in pragmatic terms, the Treaty in effect gave them unlimited licence to proliferate nuclear weapons at their discretion, because it provided loopholes which they were not obliged to close if they chose not to.<sup>19</sup>

The "London Group of Nuclear Suppliers" was formed by the United States, the Soviet Union, Britain, France, West Germany, Italy, Japan and other Western industrialised countries. They joined together in a "club" to prevent the export of nuclear technology to countries which had not acceded to safeguards imposed by the NPT.

With the formation of the London Group of nuclear

suppliers, it has become an oligopoly of industrialised powers as against the rest of the non-industrialised world. It is not fortuitous that the five nuclear weapon powers also happen to be the five permanent members of the U.N. Security Council decided upon at Yalta in February 1945 before the world was decolonised. Now that nuclear weapons have, come to symbolise the hierarchical status in the international power system, the real purpose of the NPT is to freeze the status quo and perpetuate the international power system as it existed at the end of world war II. The nuclear weapon has thus become the symbol of great power status consequently it is considered necessary to deny this status to other nations.<sup>20</sup>

The conclusion is inescapable that countries like the United States, Germany, France, Britain, Holland, Belgium and Switzerland have in various ways contributed to the proliferation of nuclear technology to countries like Israel, South Africa and now Pakistan.

It is also clear that the present NPT has failed in its twin objectives of non-proliferation and disarmament. This is essentially because the NPT legitimises nuclear weapons and does not provide for adequate provisions for nuclear disarmament. However, non proliferation and disarmament are intrinsically linked to each other, and must get due emphasis. This can be achieved through the amendment of the NPT with the necessary fora and legal validity to ensure nuclear disarmament moves at a faster and equitable pace,

preferably within a time bound programme, or by negotiating a comprehensive non proliferation regime through a universal, effective treaty for the abolition of nuclear weapons.<sup>21</sup>

### South Asia At The Nuclear Crossroads

South Asia today stands poised at a critical moment in its long history. Leaders in India and Pakistan are now confronting decisions on the acquisition of nuclear weapons, which will fundamentally effect the security relations between these nations and which will have important global consequences as well.

The hostility and suspicion that have long marked Indo-Pakistani relations are driving their nuclear rivalry today. Pakistan now has the essentials for its first nuclear device Islamabad's nuclear ambitions stem principally from its efforts to meet the threat from India's conventional military superiority and its nuclear potential as well as to counter more subtle forms of Indian dominance in regional affairs. Islamabad's desire for prestige and political influence in the islamic world appears to be an additional factor motivating Pakistani's drive for nuclear status.<sup>22</sup>

India with a far more extensive nuclear program, conducted a single nuclear explosion in 1974 and has considerably enlarged its nuclear weapons production potential since then. Although it may have fabricated a

number of undeclared nuclear weapons, or may be fabricating them at this time. India has not conducted another nuclear test or deployed nuclear arms. Indian leaders have declared however, that India may become a nuclear power in response to Pakistan's growing nuclear capabilities. India's diffuse security concerns, ranging from the potential nuclear threat from China to anxieties about superpower intervention in South Asia, coupled with India's aspirations for major power status, are underlying factors leading to its insistence on maintaining a nuclear weapons option. These factors could eventually cause India to deploy a nuclear force, quite apart from any nuclear threat from Pakistan's increasing nuclear potential.

If present trends continue, an open ended nuclear arms race in South Asia appears inevitable; arguably it has already begun. Currently, it appears that both nations would be able to manufacture atomic bomb during any crisis lasting more than several weeks and to deliver such weapons by aircraft. Momentum is building, moreover, towards further nuclearization. A critical factor is that both nations appear to be striving to accumulate nuclear weapons material free from non proliferation controls. Thus even if their respective nuclear weapons programs remain undeclared, the number of weapons potentially available to each side will steadily increase in the months and years ahead. By late 1990, Pakistan could have as many as 15 Hiroshima size devices while India might have produced more than 100.<sup>23</sup>

If the ongoing tensions between the two states cannot be eased and if the security challenges in the region posed by the major powers remain unchanged it is likely that these capabilities will continue to grow and there is reasonable cause for concern that momentum will build for the integration of nuclear armaments into the armed forces of both nations, as well as for nuclear testing. The inherent risk that nuclear weapons might be used would also grow.

### Risks of Nuclear Arming On The Sub-Continent

Although the arsenals of the nuclear powers vastly overshadow the nuclear potential of India and Pakistan, nuclear proliferation in South Asia nevertheless poses serious risks of its own to regional and global security. Most important, the risk of nuclear war in the subcontinent would become a tangible danger. The presence of two nuclear armed adversaries with a history of recent wars facing each other across a common border would present a far more volatile situation that can be found today between any other pair of nuclear powers. Nuclear Arms, moreover, would greatly increase the stakes in any future Indo-Pakistani Conflict.

In short, nuclear proliferation in South Asia could heighten the over all risks of nuclear war, adding an unpredictable new dimension to this danger.



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## C H A P T E R - II

### INDIA'S NUCLEAR POLICY

No country in the world has debated the question of going nuclear as intensely and far as long a period as India. The debate has been going on for more than two decades and continues to do so.

Before the debate began in the sixties, India had a stable and coherent nuclear policy for nearly ten years. That policy had been defined by Jawaharlal Nehru. Its origin lay in the Gandhian tradition and ideal of non violence, which was also part of the heritage of the Indian freedom struggle. Nehru had a genuine horror of the nuclear, menace and believed that India, while developing nuclear energy for peaceful purposes, must never go in for nuclear weapons.

This chapter looks at the overall development of Indian nuclear program. Factors which may have helped Indian decision makers to resist the temptation to go nuclear. The strategic consequences of possible Indian nuclear weapons on the country's relations with the neighbour's specially Pakistan, India's stand on the NPT and its role in the fourth coming extension conference will also be examined.

Atomic Energy represents a significant break through in science and technology. It promises the possibility of a new industrial revolution for India.<sup>1</sup>

Since demonstrating its ability to produce nuclear weapons in its May 18, 1974 test, India has refrained from conducting further nuclear test or manufacturing nuclear weapons. Confronted with an emerging nuclear threat from Pakistan, India may perceive increasing reason to use the new potential for the overt-development of nuclear arms. In 1948, an year after attaining its independence from Great Britain, India established an atomic Energy Commission to advise government leaders on nuclear issues, oversee the training of Indian nuclear scientist and survey India's potential uranium resources.<sup>2</sup>

### Genesis and Evolution of India's Nuclear Policy

Nuclear policy in general is rather inextricably linked to the domestic structure, needs and constraints, The History of nuclear policy in India is the history of politico economic structure evolved all through post independent period. The factors that determine the strength of a country include the level of economic development and the extent of its international influence. But the level of the country's economy is determined by its energy technology.<sup>3</sup> What kind of nuclear technology should India adopt and under whose supervision? . Should India abandon nuclear policy for peaceful and constructive purposes? These were the issue which came to the forefront at that time. The utilization of nuclear technology for economic gains by nations would in no way jeopardize the

peace and security of the world. The euphoria and paroxysms generated by the western countries, the U.S. in particular, over the issue of proliferation of nuclear technology is an attempt towards achieving monopolization of nuclear energy. This would tend to undermine independence of the third world including India's policy behaviour towards other state . During the 1950s Indian Foreign policy aimed at establishing a global system which would help achieve her economic goals. Moreover, India's defence mechanism sought to form a strategy through non-alignment which could act as "a form of balance of power politics."<sup>4</sup>

Further, India's security policy after the Sino Indian War (1962) shifted from a soft, defence oriented attitude to a recognition of hard boiled realities of world politics. India's goal of peace remained unchanged but, in practice, our foreign policy elites recognized that "available military force was a vital condition for the achievement of peace."<sup>5</sup> The 1962 adventure reinforced India's misgivings about China's hegemonistic designs. Of course India's basic tenet of nuclear policy since the 1950s has been to persuade big powers to disarm themselves in the wake of small and medium power's scramble for acquisition of arms. But our own security came to be threatened by the manifestation of China's sinister moves in its nuclear policy. As a matter of practical policy, India is willing to forego a nuclear deterrent, only if sustained world pressure keep China's nuclear aspirations in check.<sup>6</sup>

Another factor that influenced India's nuclear diplomacy was the American policy of supplying massive arms and military equipment to Pakistan Military aid to Pakistan, as a part of America's global strategy, to maintain balance of power in the sub continent, encouraged Pakistan's military adventurism. While the American action sought primarily to contain Soviet expansion. The broader focus reflected US hostility to India's position as a non aligned force in world politics. This focus became a contextual feature in the arms control and disarmament negotiations, that is "whenever India and the US faced each other in arms control and disarmament negotiations sensitive neighbours, critical strategic environment, potential economic need and a grave concern for rapid modernisation of India provided Indian planners and scientists to go ahead with peaceful nuclear programmes. As it has been reiterated India had long realized peaceful uses of nuclear energy for banking sector eradication of diseases and warding off unhealthy trends perceptible in her economy. The setting up of nuclear research and power reactors thus are attempts in this direction.

The first nuclear reactor, named Apsara which started functioning at Trombay, possesses a capacity of one megawatt of thermal energy output. In 1960, a Canadian Indian Research Reactor went into operation. The reactor known as circus has the power capacity of 40 MW. A major landmark in India's nuclear technology was reached when a

third research reactor Zerling was built and designed fully by Indian personnel. The power output of this reactor is 100 MW. In 1962, India's first heavy water plant came into existence. In 1963, an agreement over setting up a nuclear power plant at Tarapur with US collaboration was signed. In 1972, India's fourth research reactor Purnima started functioning. This is a zero energy fast reactor, and later on three more reactors kamini at Kalpakam Dhruva at Trombay and FBTR at Kalpakkam, came up. The Atomic Energy Commission has been able to achieve self reliance in all critical areas of nuclear technology such as fuel, heavy water, reprocessing and building of sophisticated research and power reactors.<sup>7</sup>

### **Architect of India's Nuclear Policy**

India's nuclear policy was the product of the vision of Nehru who had summed up India's quest for self discovery that had started in the 19th century under the impact of western ideas. Nehru was not interested in science and scientific knowledge merely as a catalyst for activating India's hidden energies and potentialities. He was aware of the opening of new possibilities as a result of advances in the scientific thought and its technological application. He said:

"I am convinced that methods of science have revolutionised human life more than anything else in the long course of history, and have opened doors and avenues of further and even more radical change, leading up to the very portals of what has long been considered the unknown. The

technical achievement of science are obvious: its capacity to transform our economy of scarcity into one of abundance to evident its invasion of many problems which have so far been the monopoly of philosophy is becoming more pronounced."<sup>8</sup>

India's nuclear programme owes its entirety to Nehru's abiding interest in Science and Technology. In Nehru's own words, "the use of atomic energy for peaceful purposes is far more important for a country like India whose power resources are limited than for an industrially advanced country."<sup>9</sup>

In 1954, the Department of Atomic Energy was created to build and operate India's nuclear installations, and by the following year more than two hundred scientists were engaged in nuclear research and development at DAE's Trombay Atomic Research Centre. In 1958 reorganisation, the DAE was placed under the atomic energy commission which was given policy making and budgetary authority, over the entire Indian nuclear programme, subject to approval by the Prime Minister.

### Technical Objectives and Achievement

For a variety of reasons the Indian Atomic Energy Commission and its functional arm, the Department of Atomic Energy did not become merely ornamental adjuncts of a newly independent state. The reasons for this were the personality



and power of one individual during the formative stages of the country's nuclear programme Bhabha, first technical-cum-administrative manager of India's atomic research activities laid down in the early fifties the technological goals for the country's nuclear programmes, the stages by which they were to be pursued, and the time schedule within which they were to be pursued, and the time schedule within which they were to be achieved. In summary form, these were:

(1) Long term technological autochary in all phases of nuclear related activities.

(2) Acquisition of the technologies in the interim form wherever possible.

(3) Learning manufacture and design of nuclear engineering application simultaneously with acquisition of the technology and plant from abroad.

(4) Moving in sequential stages from the acquisition and/or development of enriched uranium (U-235) to natural breeder reactor technologies.

(5) Training a large cadre of nuclear research personnel initially abroad but mostly at home; and

(6) completion of all the preceding objectives within twenty to twentyfive years of their inception. By 1975, the nuclear programme could be assessed as having proceeded largely according to Bhabha's planning.<sup>10</sup>

At Bhabha's insistence an Atomic Energy Commission was set up in 1948 within eight months of country's independence. Steady funding began only in 1954 with the creation of a Department of Atomic Energy within two years Bhabha had led a team of United Indian Scientist to carry out the first sustained chain reaction of an atomic pile in Asia (outside USSR) Code name Apsara, the one megawatt nuclear, research reactor was constructed without foreign help. In another two years 1958, Bhabha made the first public but muted claim of Indian ability to construct nuclear explosive device within eighteen months of sanction, and six years before the Chinese.<sup>11</sup> Since then informal knowledge suggests that Indian government policy consciously checked during the years 1958-71 a demand by scientific bureaucratic groups for a focused drive to produce nuclear explosive elements.

At least upto 1966 when he died in a plane crash. Bhabha's technical nuclear decisions were India's nuclear decisions. Progress before and after Bhabha was secretive rather than spectacular. Agreements with Canada had provided a natural uranium 40 megawatt research and isotope producing reactor CIRUS in 1960 and Indian nuclear engineering personal participated in the phases of its construction. A 100 megawatt zero energy reactor (code name zerlina) was constructed by indigeneous effort by 1961 successively according to the technological stages prescribed by Bhabha came the following commercial nuclear

# INDIA : NUCLEAR SELF-SUFFICIENCY AT A PRICE

The Atomic Energy Commission has been able to achieve self-reliance in all the critical areas of nuclear technology such as fuel, heavy water, reprocessing and building of sophisticated research and power reactors.

1

## MINING

1. Indian Rare Earths Ltd. Bombay
2. Rare Earths Plant. Alwaye (Kerala)
3. Mineral Separation Plant, Chavara (Kerala), Manavalakuruchi (Tamil Nadu)
4. Orissa Sands Complex, Chhatrapur (Orissa)
5. Uranium Corporation of India, Turamdih, Jaduguda (Bihar)

2

## HEAVY WATER PLANTS

Location	Capacity in MW/year
1. Nangal (Punjab)	14
2. Baroda (Gujarat)	45
3. Tuticorin (Tamil Nadu)	49
4. Talcher (Orissa)	Very little
5. Kota (Rajasthan)	85
6. Thal (Maharashtra)	100
7. Munuguru (Andhra)	185
8. Hazira (Gujarat)	100

3

## FUEL FABRICATION

Location	Capacity/year
1. NFC Hyderabad (AP)	90 MT per year
2. Trombay (Maharashtra)	Sufficient for CIRUS, DHRUVA, FBTR fuel pins
3. Turamdih (Bihar)	Yet to start

6

## POWER REACTORS

Operating	Capacity in MW
1. Tarapur 1 & 2 (Maharashtra)	320
2. Rajasthan 1 & 2 (Kota, Rajasthan)	300
3. Madras 1 & 2 (Kalpakkam, TN)	440
4. Narora 1 & 2 (Uttar Pradesh)	440
5. Kakrapar 1 (Gujarat)	220
Under construction	
1. Kakrapar 2 & 3 (Gujarat)	220
2. Rajasthan 3 & 4 (Kota, Rajasthan)	440
3. Kaiga 1 & 2 (Karnataka)	440
Sanctioned	
1. Tarapur 1 & 2 (Maharashtra)	500

## RESEARCH REACTORS

	Capacity
1. APSARA (Trombay)	1 MW
2. CIRUS (Trombay)	40 MW
3. ZERLINA (Trombay)	100 Watts
4. PURNIMA 2 (Trombay)	-
5. PURNIMA 3 (Trombay)	-
6. KAMINI (Kalpakkam)	30 KW
7. DHRUVA (Trombay)	100 MW
8. FBTR (Kalpakkam)	42 MW

5

## REPROCESSING UNITS

Location	Capacity in tonnes
1. Trombay (Maharashtra)	30
2. Tarapur (Maharashtra)	100
3. Kalpakkam 1 (Tamil Nadu)	Laboratory scale
4. Kalpakkam 2 (Tamil Nadu)	125

power projects.

(1) Tarapur (Bombay), 420 megawatts, using enriched uranium fuel charges under safeguards arrangements built on a turnkey basis by the General Electric Co. US, 1969.

(2) Kota (Rajasthan), 430 megawatts using locally supplied natural uranium, built jointly by Canadian and Indian Atomic Energy Commission.

(3) Kalapakkam (Tamil Nadu), 470 megawatts using local natural uranium, began as an 80 per cent Indian and 20 per cent canadian joint project.

The present state of nuclear technology in India is given in the adjoining figure.

### **First Reprocessing Plant**

India's nuclear energy plan also meant that reprocessing the extraction of plutonium from spent reactor fuel would be an integral part of Indian nuclear program and in 1958 plans were announced for construction of a pilot scale reprocessing plant at the Trombay Atomic Research Centre. The plant with the capacity to handle thirty metric tons (1 metric ton = 2200 pounds) of spent fuel annually was intended to extract plutonium from fuel irradiated in the CIRUS-plant and two smaller research reactors at the site. This facility, too was not subject to external safeguards of any kind. India received engineering assistance from an American firm, Virto International as well as from French

engineering consultants. The plant began full scale cooperation in 1966. Plutonium extracted in it from the CIRUS reactors spent fuel formed the core of the nuclear device detonated in 1974.<sup>12</sup>

### Pressures for Nuclear Arms

In November 1962, Chinese forces decisively defeated the Indian army in a series of major border clashes in the Himalayas. This defeat, together with rumours that China might soon test a nuclear device, Nehru who had declared in 1961 that India would never develop nuclear weapons under any circumstances flatly rejected the proposal to develop nuclear weapons.<sup>13</sup>

Nehru died in May 1964. In October 1964 China conducted its first nuclear test. The event triggered an intense, debated over India's nuclear posture, with strong support for the development of nuclear weapons coming not only from opposition parties, but also from important segments of Lal Bahadur Shastri's government.<sup>14</sup>

On November 24, 1964, Prime Minister, in what amounted to a major departure from his predecessor's unyielding public stance, stated that while his government continued to oppose the development of nuclear arms, this position should not be regarded as permanent one: one cannot say that the present policy is deep rooted, that cannot be set aside, that it can never be changed -- an individual may

have a static policy -- but in the political field. We can not do so. Here situations alter, changes take place, and we have to mould our policies accordingly. If there is need to amend what we have said today, then we will say all right lets go ahead and do so.<sup>15</sup>

Also in late 1964, Prime Minister reportedly authorised Indian Atomic Energy Commission Chairman Bahadur to develop the necessary technology for an Indian nuclear device probably meaning designing a nuclear device and preparing its non-nuclear components so that the lead time required to build an explosive could be reduced from eighteen to six months.<sup>16</sup>

Pressures on the Shastri government to develop nuclear weapon continued to intensify in 1965 as the Chinese conducted additional tests and threatened during the Indo Pakistani war of that year to open a second front against India.<sup>17</sup> The withdrawal of the U.S. military assistance following that conflict and China's testing of a nuclear armed missile on October 27, 1966, raised calls for Indian nuclear weapons to a Crescendo.<sup>18</sup> Shastri had died on January 10 of 1966 however and Bhabha was killed in a plane crash several weeks later. On taking power, India's new Prime Minister, Indira Gandhi, undertook a review of India's nuclear stance according to one account halting the nuclear explosives development activities authorised by Shastri, but refrained from declaring the course she would pursue, despite the gathering pressure for development of nuclear explosives. Not until 1970 did Indian Government sources

begin to hint that a nuclear explosives programme was under way. Mrs. Gandhi's nuclear policy during the 1966-70 period was uncertain.

This period appears to indicate a gradual restructuring of a predominantly development oriented nuclear programme towards a more, strategically oriented one. The 1974 (Peaceful nuclear explosion at Pokhran) in effect revealed that India was secretly involved in both accumulating bomb material and research in explosion technology.

#### **Successful Underground Nuclear Experiment**

At 08.50 hour. on May 18, 1974, the Atomic Energy Commission successfully carried out an underground nuclear explosion experiment at a depth of more than 100 metres at Pokharan in Rajasthan. This experiment was part of the research and development and that Commission has been engaged in for keeping itself abreast of developments in the peaceful applications of nuclear explosions. The Commission had been interested in this area for some time, as the Prime Minister Indira Gandhi informed Parliament on November 15, 1972 in the Lok Sabha. The Prime Minister had stated:

"The Atomic Energy Commission is studying conditions under which peaceful nuclear explosions carried out underground could be of economic benefit to India without causing

environmental hazards. All precautions are invariably taken against radiation hazards in energy nuclear activity and the record of nuclear technology in this field is amongst the best of all industries."

The successful experiment on May 18, 1974 did not result in any way in radioactive contaminations of the environment. The radio-activity was contained so well that a party of scientist were able to fly 30 metres above the site and reach upto 250 metres on the ground within an hour of the experiment without encountering any radioactive contamination.

Indian leaders have always emphasized three objectives which provided the framework for their country's nuclear policy first that India needed atomic energy for power purposes important for a country like India whose power resources are limited than for industrially advanced countries. Second that the benefits of the improvement of nuclear technology were not confined to the nuclear field as such but progress in it automatically assumed progress also in several other areas of modern technology. Technology and energy benefits of the development of nuclear technology were two considerations. At the same time, Indian leadership was never indifferent to political effects of nuclear power. Consequently apart from the energy needs and technical gains, political and strategic objectives were kept in view.<sup>19</sup>



## Political Strategic Decisions and Policies

It is assumed that Indian nuclear decisions cannot for the present incorporate the details of a deterrent weapon system. A discussion of the usefulness of nuclear weapons as elements in Indian security decisions making is prognostic rather than factual. Second the value to India of possessing nuclear weapons could specifically be stated in the ability in the future to deter subjectively perceived strategic threats e.g. from China. Third, the value of these weapons could be general in so far as they play a political role in interstate relations.

Major power deterrence based valuations of nuclear weapons provide for their possible use in some unavoidable situations. a political value approach on the other hand, emphasizes the non physical use of nuclear weapons at least for some time to come. Considering the variety of way in which the needs of security or conditions of insecurity can be defined, it might be that the true value of nuclear weapons exists so long as there is uncertainty about their possible use.<sup>20</sup> Deterrence calculations place some value on the uses of irrationality or unpredictability in strategic relationship.

To be effective deterrence must involve a real threat. The threat can only be real insofar as it reflects a high, usually rising degree of readiness. Deterrence involves a strong element of instability and is degenerative in character. It is impossible to say just how

much deterrence is enough, and precisely where one draws the line.<sup>21</sup>

According to defence analyst and expert Jasjit Singh, "While the strategic interest of India would be better served by the establishment of a nuclear weapon free world, national policy must also deal with the reality that nuclear weapons exist in the world, Asia and with India's neighbours".<sup>22</sup>

India's policy must therefore, be able to deal with the complexities and apparent contradictions in order to further its vital interests. Nuclear weapons are really a political/diplomatic tool rather than a military weapon in the traditional sense. It is clear that the foundations of India's nuclear policy will have to continue to be based on the following broad objectives -

- (1) Complete and universal nuclear disarmament;
- (2) Effective, comprehensive, and universal non proliferation;
- (3) Until the above objectives are satisfied, and as an interim goal, maintain the potential (and if the situation warrants, the reality) of an effective, credible posture of defence through deterrence at minimum levels;
- (4) Delegitimisation of nuclear weapons, through altering the attitudes and beliefs in their use and usability, according to Jasjit Singh, even in a worst case scenario of nuclear threat, the maximum capability that would be

required for India's defence is that of minimum deterrence. India's recessed deterrence policy should be constructed on the following framework.<sup>23</sup>

(a) An open nuclear option, with capability to weaponise and provide a credible deterrent at short notice;

(b) Weaponisation only in case threat perceptions increase to levels requiring such a response;

(c) If weaponisation becomes necessary, policy must be guided by the strategy of minimum deterrence which takes into account the realities of nuclear weapons in Asia.

(d) Ensure that all other elements of nuclear deterrence, including delivery systems, would be operationally available.

#### **Pakistan's Perceptions about the Indian Nuclear Posture**

Pakistan's perceptions can be seen as a mirror image of its own posture. After China went nuclear in 1964, Pakistan came to believe strongly, regardless of indications to the contrary, that India had to and would some day come up with a nuclear arsenal in response to China. This is because of its own situation Pakistan cannot but respond to an Indian weapon option, and it expected the same for India vis-a-vis China. Pakistan's decision to acquire nuclear weapon arose largely from such perceptions of an emerging Indian threat "and not from an impulsive militancy within the context of

an islamic religious revival."<sup>24</sup> Also many Pakistani politicians and strategists believe that India possessed nuclear weapons and that "proliferation across the border" has been an accomplished fact.<sup>25</sup> Some Pakistani's believed that having nuclear weapons on their side, regardless of India's possession of them, would be a suitable counter to India's superior conventional forces.<sup>26</sup>

There could be also several other motivations and compulsions on Pakistan's side for it to resort to the nuclear weapon option. In fact, it can be argued that while prior to 1974, competition with India was almost the exclusive factor motivating Pakistan to develop its nuclear potential, increased domestic pressures. The growth in the size of the nuclear establishment and Pakistan's growing linkages with the middle East have since become important motivating factor in themselves. Bhutto's quest for Pakistani nuclearization was motivated in part by a desire to make a Pakistani contribution to the Pan Islamic revival of the period. Pakistan's prestige in the Arab has been enhanced as shown by Saudi press comments in December 1980 on the subject of Pakistani's development of the first islamic arab nuclear bomb. This prestige has proved useful domestically and externally. Since 1980 the Soviet factor in Afghanistan also added to Pakistan's justification for a nuclear deterrent, however, modest it might be.

It has also been suggested that Bhutto may have planned for the bomb with the intention also to take the

real power away from the military which had been subverting civilian rule in Pakistan and had been threatening his own regime.

Many Pakistani believe, according to an American South Asian Scholar, Stephen P. Cohen, that nuclear weapons would provide the umbrella under which Pakistan could reopen the Kashmir issue. A Pakistani nuclear capability paralyzes not only the Indian nuclear decision but also Indian Government forces and a brash hold, Pakistani strike to liberate Kashmir might go unchallenged if the Indian leadership was weak or indecisive.<sup>27</sup>

#### India's Nuclear Status

Spurred by grown concerns over Pakistan's emerging nuclear weapons capability, India's late Prime Minister Rajiv Gandhi declared in a series of statements during the spring and summer of 1985 that he was reconsidering India's policy against nuclear arming. He also hinted that India might already have prepared components for nuclear weapons, allowing it to deploy nuclear arms rapidly if a decision were made to do so.<sup>28</sup>

It could be argued that the idea of introducing nuclear weapons on the subcontinent was first publicly articulated by Pakistan's then Deputy Prime Minister Zulficar Ali Bhutto. In his highly publicized December 7, 1971 speech to the U.N. Security Council, he promised "a thousand year war with India" and subsequently declared his people would "eat grass if necessary", but would "have the bomb.

According to an American strategist John J. Schulz, it was India that startled the world in 1974 when it exploded what it called a peaceful nuclear device" and immediately announced that the explosion was designed to aid civilian atomic energy programs and was not for military purposes. In the intervening years, India has been listed by proliferation experts as a "threshold state", and although widely circulated unofficial estimates by these experts indicate New Delhi has a more advanced program than Pakistan and could assemble a number of nuclear weapons in a relatively short time perhaps weeks or months, it is rare to find serious observers who claim India has done so. The General consensus is that New Delhi has not moved to the next step of developing a full blown arsenal.<sup>29</sup>

Nevertheless, in immediate response to Pakistan's announcement in February 1992, that it could assemble a nuclear device. The Indian Foreign Minister, Madhav Singh Solanki stated: "A bomb is part of defense preparedness. We have our defence preparedness." Subsequently, other top Indian officials sought to put the foreign Minister's statement in a less pernicious light, repeating the long standing Indian policy, while it does not feel compelled to deploy nuclear weapons because of any threat from Pakistan, it must retain the nuclear option and dare not foreclose that option as long as China is a nuclear weapon power. But the question that concerns many observers is whether India's leaders, now faced with a large nuclear armed neighbour and

a smaller, potentially nuclear capable neighbour, will feel forced to move their own program upto the last notch or two to ensure credible deterrence.

### The Nuclear Non-Proliferation Treaty and India

India was one of the Co-sponsors of the resolutions which led to coming into existence of the NPT. In 1965, she put forward the following criteria for a non-proliferation treaty:

- (1) an undertaking by the nuclear powers not to transfer nuclear weapons or nuclear weapon technology to others.
- (2) An undertaking not to use nuclear weapons against countries who do not possess them.
- (3) An understanding through the United Nations to safeguard the security of countries which may be threatened by powers having a nuclear weapons capability.
- (4) Tangible progress towards disarmament, including a comprehensive test ban treaty, a complete freeze on production of nuclear weapons and means of delivery as well as substantial reduction in the existing stocks.
- (5) An undertaking by the non-nuclear powers not to acquire or manufacture nuclear weapons.<sup>30</sup>

India also supported the principles of non-proliferation laid down by the United Nations General Assembly in November 1965:

- (a) The treaty should be void of any loopholes which might permit nuclear or non-nuclear powers to proliferate, directly or indirectly, nuclear weapons in any form;
- (b) The treaty should embody an acceptable balance of mutual responsibilities and obligations of the nuclear or non-nuclear powers;
- (c) The treaty should be towards the achievement of general and complete disarmament, and more particularly, nuclear disarmament;
- (d) There should be acceptable and workable provisions to ensure the effectiveness of the treaty;
- (e) Nothing in the treaty should adversely affect the right of any group of states to conclude regional treaties in order to ensure the total absence of nuclear weapons in their respective territories.<sup>31</sup>

From about 1966 the Indian attitude to the non-proliferation issue appreciably hardened, and India since then consistently criticised the US-Soviet draft treaty on three grounds: Imbalance of obligations between the nuclear weapon powers and the non nuclear weapon countries; inadequate Security guarantees; and discrimination in the development of peaceful nuclear explosives.

India not only demanded a halt to vertical proliferation as quid pro quo for a stop to horizontal proliferation, India advocated a comprehensive test ban, a



cut off of fissile material for weapon purposes. India also opposed the discrimination in the peaceful nuclear explosions - "privilege of a few countries and denied to others."<sup>32</sup>

Carrying these arguments further, the Indian representative to the First Committee of the General Assembly said in May 1965 that the NPT did not ensure non-proliferation of nuclear weapons but only stopped "dissemination of nuclear weapons" to non nuclear countries without imposing any curbs on the continued manufacture, stockpiles and sophistication of nuclear weapons by the existing nuclear weapons states." The NPT further institutionalised discrimination by imposing safeguards on non nuclear weapon states but not on nuclear weapon states and prohibiting autonomous use of nuclear explosions for peaceful purposes by the former and not the latter.<sup>33</sup>

While much happened in the nuclear arena in the world in general, and in the non-proliferation regime in particular, the treaty continued to be adhered to by more members - even by countries - like Iraq who, side by side, were violating it. The Indian stance towards NPT, however, remained unchanged. Interestingly, despite change in governments of diverse ideologies, the policy towards the NPT has remained consistent.

Speaking at the Special session of the General Assembly in June 1978, Morarji Desai, then Prime Minister of India said, "Our objection to the treaty is because it is so

patently discriminatory. It makes an envidious distinction between countries having nuclear weaponry and those devoted to the pursuit of nuclear research and technology entirely for peaceful purposes."<sup>34</sup> Narasimha Rao as an External Affairs Minister in Mrs. Indira Gandhi's Cabinet stated in the Second Special Session on Disarmament of the U.N. General Assembly, "History has demonstrated that efforts on restraining the emergence of the largest number of nuclear weapons will succeed only if the existing nuclear weapon powers themselves accept the same discipline as they demand of others. To us this is a matter of principle. Under Article VI of the Treaty there was an obligation upon the nuclear weapon states to reduce their nuclear arsenals. In 1988, explaining his three stage disarmament plan, the first stage of which envisaged binding commitment by all nations to eliminate nuclear weapons by the year 2010 latest, he stated: "we propose negotiations must commence in the first-stage itself for a new treaty to replace the NPT." In March 1992, Prime Minister Narasimha Rao said "our position on the NPT is well known: we have not signed it and we do not propose to sign it". In November 1993, the Indian delegate to the U.N. General Assembly repealed that India would not subscribe to a "treaty or an attitude that divides the world into nuclear haves and have nots."<sup>35</sup> The official response said that the treaty in its present form was discriminatory. There was a need to alter the NPT on non-discriminatory lines, taking into account international developments over the last three decades and the imperative necessity for

Options before India

What are India's options? One set of experts think it is time for India to make some equally audacious moves. Rao could take the initiative as Rajiv Gandhi did in 1988 and Push for a global elimination of fissile weapons. He could agree to a nine-nation meeting and express a willingness to make major concessions in India's nuclear programme if others committed themselves to a time bound elimination of nuclear weapons. But the danger is that the other nations may backout and coerce India and Pakistan to give up the bomb option. And politically any move to compromise on the nuclear bomb question could be disastrous for Rao as it is a highly emotive issue.<sup>37</sup> Says Muchkund Dubey, former Foreign Secretary, "The bomb option is a currency of power that is critical to our survival as a strong nation."<sup>38</sup>

While discussing the options before India, nowhere is it implied that India has any locus standi. The country has not acceded to the NPT and therefore, it has no role to play within the Extention Conference of the Treaty to be held in 1995, its views on the treaty notwithstanding A pragmatic approach would be to campaign for a new treaty. Another bloc of opinion expouses that without signing the NPT, India should unilaterally make a formal pledge to abide by the NPT provisions barring the export of nuclear weapons or of military related nuclear technology, specifically this would mean (a) requiring that any nuclear exports would be

subject to International Atomic Energy Agency (IAEA) inspections in the recipient country to verify that military related technology is not involved and (b) withholding from other state any technological or other assistance related to the development of nuclear weapons.<sup>39</sup>

Listing India's options, Jasjit Singh says: "we have to remind the international system that 1995 offers a unique historical opportunity for negotiating an improved, truly international regime. At the same time, retaining an open ended option by itself may not serve our larger interest either. We must therefore, actively work for restructuring nuclear weapons/non proliferation regime. It should be possible for us to sign the protocol to the NPT".

Elaborating further on this protocol, he says it should incorporate the following:

- (a) Defining non-proliferation norms/incentives clearly so that proliferators can be dealt with effectively;
- (b) Classify threshold status in terms of capabilities;
- (c) Unambiguous commitment to negotiate an international treaty, governing nuclear non-proliferation on the model of the chemical weapons convention. Residual nuclear force (after gross reduction in the nuclear weapons) to be placed under multilateral control;
- (d) Global elimination of non-strategic nuclear weapons by 2000 AD.

(e) Global elimination of ballistic missiles (with 50-5,500 km ranges) by 2000 AD.

(f) No first use of nuclear weapons capabilities.<sup>40</sup>

Jasjit Singh's argument is that India could deposit a written assurance to the Security Council that "dormant deterrence" would be maintained and threshold to weaponisation not crossed unless a critical contingency arises which adversely affects national security and sovereignty.

Since the problem is stratified, the solution can only be seen in a stratified structure. It is in this framework of stratified structure that solutions can be suggested, say no first use pledge, reduction of nuclear armaments, fissile material, cut off etc. Denuclearisation, like nuclearisation, does not come overnight. Therefore, the nations should get down one rung of the ladder at a time for eventually reaching the bottom. On the way, it can bring other members positioned on different rungs of the ladder, depending on their capability, down. This is the only viable option for India.

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## C H A P T E R - III

### PAKISTAN'S NUCLEAR PROGRAMME

The History of Pakistan's nuclear development is a major example of the clandestine acquisition of reprocessing and uranium enrichment equipment in defiance of international, none proliferation regime. Pakistan at present practices a policy of 'nuclear ambiguity'.

Pakistan's nuclear policy has so far followed two distinct lines: to keep the nuclear weapon's option open, and not to cross the nuclear threshold (for example by a nuclear test or the official acknowledgement of a weapons programme).

This chapter examines Pakistan's nuclear policy, its evolution and its position on the weapons option and nuclear test. Each alternative will be looked at in terms of its impact on Pakistan's relationship with India. Moreover, the absence of internal debate on nuclear policy implies that nuclear choices are likely to be more influenced by foreign policy rather than domestic considerations. The role of external factors particularly the U.S. and China has also been taken up in this chapter.

Pakistan's nuclear history (1953-85) reveals an evolving pattern of rapid, dedicated nuclear development encompassing development of both plutonium and enriched uranium routes to proliferation but these developments are not phasal, deterministic or inevitable. Pakistan's nuclear

activities and its nuclear posture reveal a sensitivity indeed a vulnerability to the attitude and style of its political leadership to bureaucratic debates; to constraints derived from Pakistan's limited industrial base and external supply conditions; to personal rivalries at the highest level of Pakistani scientific leadership and finally to the impact of regional strategic environment and of domestic and regional) international settings have an impact on the lines of development of Pakistan's nuclear capabilities and its incentives and disincentives. It is by casting Pakistan's nuclear story in a historical perspective that a sense of zigzags in the lines of development of Pakistani nuclear capability, its nuclear policy, and its nuclear postures can be derived: In other words, the domestic and external settings which have impact on Pakistan's nuclear development are variable, as is the nature and impact of Pakistani nuclear development are variable, as is the nature and impact of Pakistani nuclear activities on its domestic and external environments.

#### **Factors Affecting Pakistan's External and Domestic Nuclear Activities**

The external factors influencing Pakistan's nuclear policy include the following:

- (a) Attitude and policies of hostile neighbours in checking the likely impact of Pakistan's nuclear activities in the region;

Since demonstrating its ability to produce nuclear weapons in its May 18, 1974 test, India has refrained from conducting further nuclear test or manufacturing nuclear weapons. Confronted with an emerging nuclear threat from Pakistan, India may perceive increasing reason to use the new potential for the overt-development of nuclear arms. In 1948, an year after attaining its independence from Great Britain, India established an atomic Energy Commission to advise government leaders on nuclear issues, oversee the training of Indian nuclear scientist and survey India's potential uranium resources.<sup>2</sup>

### Genesis and Evolution of India's Nuclear Policy

Nuclear policy in general is rather inextricably linked to the domestic structure, needs and constraints, The History of nuclear policy in India is the history of politico economic structure evolved all through post independent period. The factors that determine the strength of a country include the level of economic development and the extent of its international influence. But the level of the country's economy is determined by its energy technology.<sup>3</sup> What kind of nuclear technology should India adopt and under under whose supervision? . Should India abandon nuclear policy for peaceful and constructive purposes? These were the issue which came to the forefront at that time. The utilization of nuclear technology for economic gains by nations would in no way jeopardize the

(d) The ability of Pakistani scientific, technological and industrial sectors to support Pakistan's capability to test a device, to possess a few in untested form, to mount a small nuclear force or generally to stay abreast of modern nuclear scientific developments.

(d) The attitudes of Pakistani domestic public opinion on Pakistan's nuclear development.<sup>2</sup>

Three bases are addressed in this study. First, in Pakistan's troubled history since 1947 with weak domestic social and political structures, frequent changes in its leadership and the primary interest of successive governments have led to ambiguity and mistrust about Pakistan's efforts to propagate the use of nuclear energy for peaceful purposes and in the efforts to acquire the means to do so. Pakistan has failed to develop a credible path to promote its nuclear power reactor programme which makes technical, economic and political sense. Second, a composite view of Pakistan's nuclear history since the mid-1950s show that there is ambiguity as well about the military side of Pakistani nuclear activities. The set of incentives and disincentives about the plutonium bomb option and/or the enriched uranium bomb option, and the pattern of nuclear activities and political decisions to develop either option, have varied under the Bhutto and the Zia Governments. Fluctuations in policy actions at the highest government level, and frequent internal bureaucratic debates

about technical and political issues associated with Pakistani nuclear activities, have been constant elements in Pakistani nuclear decision making since the 1960s. Since 1972, Pakistan has incrementally acquired a nuclear explosive capability. Nevertheless, the political /military/scientific leadership is not firmly committed to nuclear weapons stance or the acquisition of a nuclear arsenal. Pakistan's nuclear policy and its nuclear posture have continually been ambiguous, although the reasons and nature of this ambiguity have changed since 1972; however, the scope, the direction, and the external posture on the nuclear issue has been continually ambiguous because of a lack of decision and consensus within the Pakistan government.

Third, to make sense of the evolution of the zig zags of Pakistani nuclear activities, its nuclear posture and nuclear diplomacy, we need to contrast the historical western view of nuclear proliferation (which tends to follow and stress the world wide spread of nuclear technology and facilities with a new dynamic view that would pour attention on leadership motivations and style, and competing internal bureaucratic and personal interest and attitudes, about technical and political issues. Whereas the western view has traditionally emphasised the technical industrial base, we emphasise the motivations of a near nuclear country's political military scientific technological and industrial constraints.

## Threat Analysis

If the strategy is defined as those matters which affect the integrity and existence of the states, then Pakistan must have one of the most complex and multilayered strategic threat analysis of any state in the world. To the east Pakistan faces India, a state with vastly superior industrial resources and much larger human bases<sup>3</sup> to the west lies Afghanistan, never a friendly power. In two of Pakistan's provinces there are important populations with strong ethnic and tribal ties across the border in Afghanistan; even on the Indian frontier.<sup>4</sup> Thus domestic Pakistani politics remains intimately linked to political relations with Pakistan's neighbours, any analysis of threats to Pakistan's security must emphasize this overlap between internal and external problems.

On the ground, specific conventional military threats can be identified. To the east, Pakistan shares a long frontier with India much of that frontier, is ideal tank country and both states maintain the bulk of their armed forces along the Punjab, Rajasthan and sind line. Three major wars have been fought over that frontier; at its northern end and there is a ceasefire line that is appropriate guerrilla territory Pakistan's only port, Karachi, is closed to Indian frontier. It can be attacked by land and air and can be blockaded very quickly by any state (such as India) with a moderate naval capability.

To the west is Durand line between Pakistan and Afghanistan. The Durand line was publicly challenged by Afgan government, although its legitimacy now seems to be accepted on both sides. However, a number of major tribes straddle this frontier. Almost a million tribal people have sought refuge with their Kinsmen in Pakistan as a result of former Soviet Unions military activity.

Besides, these conventional strategic threats to Pakistan which may well involve rebels acting in supports of or simultaneously with an external power Pakistanis are virtually unanimous in their perception of military nuclear threat.

Their concern obviously stems from the 1974 explosion of an Indian nuclear device. However, there is some evidence to indicate that Pakistan took the nuclear issue seriously before that.<sup>5</sup>

Indeed one may argue the idea of a nuclear weapon dovetails nicely into overall Pakistani strategic doctrine. In any case, the nuclear programme was apparently continued by the military after the removed Z.A. Bhutto from power in 1977. This is an involved and complicated issue. However, Pakistani tend to define nuclear threat as arising in the following sequence. First, India's possession of several nuclear weapons must be assumed. Second, such weapons are directed primarily against Pakistan, not China. Pakistani strategists generally ridicule the idea of India catching up with the Chinese or that there are any serious grounds for

an India-China conflict. Third if Pakistan is the target then the Indian bomb must have a military as well as a political rationale. They generally see it as enabling Indian conventional forces to seize the rest of Kashmir from Pakistan or even to dismember all of Pakistani nuclear weapons held in reserve as a threat against Lahore, Karachi, Islamabad and other vital targets would effectively paralyse Pakistan and make it unable to resist. And fourthly, they conclude that a modest, "limited" Pakistani weapons, program is essential to deter India's nuclear forces. These factors explain their pursuit of fissile material through both the reprocessing and enrichment routes and perhaps through other channels.

### Strategic Doctrine

The preparation of strategic doctrine in Pakistan closely resembles an attempt to hit multiple moving targets from a moving vehicle. Not only are the forces and threats to Pakistan in constant flux but the capacity of the state itself to respond to such threats has dramatically changed within a short time. For example in 1965 the decision not to defend East Pakistan was reaffirmed and only taken when forces were stationed there. This neglect of East Bengal contributed to growing separatism in that province.<sup>6</sup> However, the units necessary to control that separatism could not be released from west Pakistan because the Indian military continue to pose a threat there. Another example, Pakistan was faced with the prospect of incursions along the



Durand line but it could not risk a massive transfer of forces to its western frontier for fear of leaving its border with India open to attack. Yet it must have not run the risk of allowing incursions to occur now because of the relatively weak political position of the military in the country: one major military defeat might mean the end for that strategic planning. In both of these cases Pakistan did not have the resources to enable it to fight a two front war; yet there were compelling political reasons to prevent it from redefining the strategic threat so that it would not have to fight such a war. One of these reasons was and is the hope that outside powers will provide substantial military assistance to Pakistan but even the outside support was unreliable and unpredictable. Despite Pakistan's essential strategic dilemma, it is a big enough state to play the game but not big enough to win. It has evolved a strategic style, which might also be called a strategic doctrine.<sup>7</sup>

Given Pakistan's size and location, as well as the terrain along its eastern border with India, its strategists have always been attracted to the doctrine of offensive defence. In times of heightening crisis, Pakistan has not hesitated to be the first to employ the heavy use of force to gain an initial advantages. This was clearly the pattern in 1965 and possibly in 1971; in both cases it was thought that a short, sharp war would achieve Pakistan's military as well as political objectives. However, this strategy has

always assume the availability of high performance armour and aircraft and superior generalship, given India's larger territory and population.

Looking at the map, it is easy to see why Pakistanis have always been reluctant to adopt a strategy of trading space for time, a number of vital Pakistani population and transportation centres are located near India and there is little room to defend.

Second, Pakistan has usually regarded as an opportunity to bring outstanding conflicts to the attention of the international community and mobilize its friends among the islamic world and fellow alliance members and more recently; the People's Republic of China (PRC). But over the years, the world has grown tired of India and Pakistan shooting at each other. Pakistan cannot count on any one caring much about a new war with India, and at the same time, its capacity to avoid defeat at the hands of the Indians has been sharply reduced, war for political purposes non represent an enormous risk to the survival of the state.

A third component of Pakistani strategic doctrine has been to use military force to deter on Indian attack. In recent years this has become the dominant theme of Pakistani defence planners since they realized that the risk of initiating war becomes greater. Bluntly put, the Pakistani hope to kill as many Indian soldiers as they can, raising the cost of Indian victory to unacceptable level.<sup>8</sup>

A second strategic doctrine was widely discussed in Pakistan a number of years ago and may yet be revived by

some future government. This may be termed a people's guerrilla war. It grows out of three military traditions, all of them familiar to the Pakistan army. It argues that instead of relying for deterrence and defense upon very expensive and very high technology weapons nuclear or conventional, that Pakistan train and arm its population so that any invader would be unable to occupy the country. The cost of victory would be so great that such an invader presumably India, would have to retreat or would be deterred from attacking. A variation on this peoples guerrilla war involves a more activist strategy: train and arm friendly populations in the territory of your enemy, tying him down in a hundred places.<sup>9</sup> Of course, this strategic doctrine borrows from American special forces training imparted to many Pakistanis, and the two thousand year old tradition of tribal guerrilla war that is found in Pakistan's NWFP and Baluchistan.

The strategic choices open to Pakistan never were terribly attractive and are now increasingly risky and limited in number. It would be suicide for the Pakistan Army to provoke a confrontation with Indian forces today, even managing limited incursions from Indian or Afghan frontier runs great risks of escalation.

### **Pakistan's Nuclear Capability**

Pakistan is today at the threshold of becoming a nuclear weapons state. Some observers believe it already

possesses all of the components needed to assemble a number of nuclear weapons. The more widely held view, however, is that Pakistan has probably completed the installations and mastered the technology essential for manufacturing. Most observers believe Pakistan could develop reliable nuclear weapons without a test, particularly if as alleged, it has received nuclear weapons design information from China.

The centre piece of the Pakistani nuclear weapons effort is a gas centrifuge uranium enrichment plant at Kahuta believed to be based on designs obtained illegally from Netherlands in the mid-1970s and equipment purchased clandestinely in western Europe, Canada, and the U.S. Such a facility can be used, in theory, to produce weapons unseable highly enriched uranium i.e., uranium in which the concentration of the most easily split type of uranium atom, uranium 235, has been increase to 90% or more. In natural unimproved uranium, uranium 235 occurs at a concentration only 0.7%. The Kahuta plant is not subject to IAEA inspection or any other non-proliferation controls, leaving Pakistan free to use its output for nuclear arms without violating any international undertakings.<sup>10</sup>

#### **The genesis of Pakistan's Nuclear Programme**

Pakistan embarked upon its nuclear programme in 1954. It is from 1955 that the evolution of its nuclear policy too, can be traced. Zafarullah Khan, the then Foreign Minister, said in 1954 that this country had no policy on the atom bomb.<sup>11</sup>

Though President Eisenhower's peace plan and proposal for launching of the International Atomic Energy Council was welcomed by the press, "the press did not have the backing of an official policy on nuclear matters."<sup>12</sup>

Pakistan's nuclear developments can be studied in two phases:

(1) From 1954-1971: when the official policy was to have a purely civilian programme;

(2) From 1972-1986: when reprocessing as well as enrichment routes (technicalities explained later) to a weapon programme were adopted.

#### **Phase I: 1954-1971: Civilian Nuclear Programme**

In 1954, the Government College at Lahore established the High Tension Nuclear Laboratory to provide research facilities to post-graduate students in the Physics department<sup>13</sup>. This was the first step towards a nuclear programme. In October that year, the Industry Minister announced plans to establish an atomic research body which was intended to be part of a new organisation for scientific and industrial research in the country.

Next year (1955), the Government set up a 12 member Atomic Energy Committee chaired by Dr. Nazir Ahmad for the promotion of peaceful uses of atomic energy in Pakistan.<sup>14</sup> It was entrusted with the task of estimating the requirements of its organisation, identifying personnel

needs, devising a plan to survey and assess radio active material and advising the government on any other matter pertaining to atomic research. The Committee suggested that the government should take early steps to appoint an Atomic Energy Commission.<sup>15</sup> Consequently, a high powered Atomic Energy Council which comprised a Governing Body and a Commission was set up in March 1956.

The Pakistan Atomic Energy Commission was entrusted, by the Government with the task of Planning and developing peaceful uses of nuclear energy with special references to survey, procurement and disposal of radio active materials planning and establishment of an atomic energy and nuclear research institute installation of research and power reactors; negotiating for cooperation in the nuclear field with the international atomic energy bodies to create a cadre of trained personnel, and application of radio isotopes to agriculture, health and industry.<sup>16</sup>

The pursuit of a nuclear energy and research programme was inconceivable in the absence of a core of especially trained scientist, engineers and technicians since Pakistan did not have suitable training facilities of its own. The PAEC, soon after its creation, made arrangements for training of its scientist abroad, primarily in Britain, France, Canada and the United States in radio isotopes and reactor technology.<sup>17</sup> The PAEC was contemplating setting up an institute of nuclear research

and reactor technology in whose completion the available research facilities were to be transferred to it. The Commission proposed to establish four centres - two in the then west Pakistan and two in the then East Pakistan to promote the beneficial uses of isotopes in the field of agriculture and food preservation. It also propose to set up eight medical centres for curing diseases like Cancer.

As a member of the Baghdad Pact (known as CENTO since 1958), Pakistan began cooperating with the Baghdad Nuclear Centre. Pakistan also took part in international conferences on the peaceful uses of atomic energy, e.g. the International Atoms for Peace Conference Geneva (August 1955), the conference on the draft statute of the International Atomic Energy Agency (in which it was elected member of the Preparatory Commission) the Commonwealth Conference on radiation protection, and the Reactor Conference held under the auspices of the Institute of Physics, London.<sup>18</sup>

But the PAEC programme could not move ahead according to the plan. This was because to quote Nazir Ahmad, "Unfortunately at the critical stage (when the reactor was being evaluated) other considerations of a non-technical nature were allowed to creep in and cloud the issue, with the result that the approval of the reactor project was held up for over a year.

Pakistan's nuclear programme in its first phase (1953-1971) was essentially peaceful so was the declared official policy. The progress had been slow to begin with,

but had picked up momentum after 1958, though it was again hampered in 1968. But at no stage was there any deviation from the peaceful policy.

The prime reason for the peaceful nature of the programme was that the leadership was not in favour of a weapons programme "what do we need a bomb for? Pakistan is a poor country - we cannot afford it." Besides, according to Dr. Usmani, Pakistan did not have the requisite infrastructure.

### **Phase II: Nuclear Weapons Programme**

The status of Pakistan's nuclear programme in this period is described in an authoritative publication of the international institute of strategic studies as follows:

Since the Indian nuclear explosion of May 1974, Pakistan has openly expressed interest in sensitive nuclear technology. A 1975 agreement with France for the delivery of a reprocessing facility had collapsed in 1978, but Pakistan had nevertheless, through her own efforts, acquired many of the necessary tools for a nuclear weapons option with information gathered by a Pakistani scientist at the European enrichment complex at Almelo in Netherlands, and through a complex network of clandestine procurement deals with European and North America producers, no fewer than four sensitive nuclear programmes were set up and are now in various stages of development."

It further states: "In January 1972, less than two



months after taking office, Bhutto convened a meeting of a group of Pakistan's top scientist in the city of multan where he told them, "Look we are going to have a bomb. Can you give it to me?" They said they could, given the resources and facilities. "I shall find you the resources and I shall find you the facilities", he had said, adding that he wanted it in three years.<sup>19</sup>

The timing is significant because it counters the typical western argument that Pakistan's quest for weapon capabilities was instigated by the Indian explosion in 1974.

The Canadian built KANUPP, Pakistan's first nuclear power plant, which became critical in 1971, was opened by Bhutto in 1972. It is a heavy water reactor with an installed capacity of 137 MW. In the wake of the termination of Canadian collaboration Pakistan developed its own uranium and has been independently operating it since 1979. The plant had to be shut in 1980 but was restarted in 1981.

### Pokhran Fallout In Pakistan

Bhutto's bomb decision in 1972 reflected his personal motivations and a national consensus to give the nuclear programme an anti Indian and a military orientation: that is the 1972 bomb decision was an expression of Pakistan's national interest. As such, Pakistani national nuclear aims had a linear dimension: (a) to develop reprocessing capability using diverted spent fuel from a safeguarded

facility to make the bomb: (b) to explode the bomb to demonstrate Pakistan's capability and intention to match India.<sup>20</sup>

Despite Butto's celebrated bomb decision in 1972, the compulsion within Pakistani nuclear establishment to make the bomb was weak compared to 1974 when the Indian test dramatically increased the compulsions. Here the period 1974-75 is significant. After 1974 Pakistani arms control diplomacy acquired a firmer Indo-Centric basis compared to the 1960s and to the 1972-74 period.

In the month since India's test three distinct Pakistani responses were discernible. The immediate and Public response questioned Indian claims of peaceful intentions and argued that India was seeking a nuclear weapons capability with which to coerce and intimidate her neighbours. In the fall of 1974, Prime Minister Bhutto began to manipulate the threat to go nuclear to put pressure upon the United States to lift its embargo upon arms sale to Pakistan. "If we are satisfied with our security requirements in conventional armaments", he stated, "we would not hazard our economic future and promote an economic and social upheaval by diverting vast resources for a nuclear programme."<sup>21</sup> With the resumption of arms sales, such public threats to 'go nuclear' dropped from view. Nevertheless, the Pakistani government began negotiations which have been concluded successfully. This decision only can be understood as a divert consequence of the Pokharan explosion.

Dr. A.Q. Khan first visited Pakistan in 1974. This visit was followed by the delivery of technical papers connected with uranium enrichment by the centrifuge method to Islamabad. By 1975, Dr. Khan had permanently moved to Pakistan. Second, Dr. Khan provided the Pakistan government with a "shopping list" of components to be acquired for the centrifuge project. In the after-math of Indian nuclear test, the Plutonium bomb option was beginning to take shape, The second development was that the purchasing networks which had been established in western Europe from the early 1970, were being utilized to acquire items on Dr. A.Q. Khan's shopping list concerning enrichment plant and to fill the gaps in the equipment and blue prints which had not been delivered by France as a consequence of the suspension of the French contract. This marks the beginning of the process of clandestine acquisition for enrichment project.

The clandestine acquisition got underway during 1975-78 both the plutonium and uranium bomb routes were active. In 1972 Bhutto was seeking accommodation not confrontation, with India by his signature of the Simla agreement. The compulsion to challenge India in the nuclear field must not have been strong; or if it was, then the Simla agreement represented a policy of calculated deception, a part of the peace offensive to buy time until the time was ripe to confront India by military and nuclear means.

In other words even though the Indian focus was revealed in the Pakistani bomb decision in 1972 and in Pakistani nuclear activities after 1972, and India's 1974 test led to an acceleration of Pakistani nuclear activities, still there was no sign of irrevocable linear movement to nuclearise Pakistani military strategy.<sup>22</sup>

**Turn Towards Reprocessing and Uranium Enrichment - the Plutonium Pathway**

Pakistan is the first country in the world to make a straight purchase of a reprocessing plant. All countries before it including India and Japan, had built their own as part of their technological development.<sup>23</sup>

Bhutto's Plan, according to some authors, was to use the plutonium from the Canadian reactor to make his first atom bomb.<sup>24</sup>

The advantage with the Canadian reactor is that it uses fuels from natural uranium (does not need enrichment), it does not have to be shut down for refuelling and new fuel rods can be mechanically built. It produces in the used or irradiated fuel a large quantity of plutonium, which is more frequently used as a nuclear explosive. What was needed then was a way to get the plutonium out of the used reactor fuel a reprocessing plant and to get it, Bhutto turned to the French. Reprocessing or Plutonium extraction was a French speciality and the job fell primarily on a highly specialized Engineering firm called Societe Generale pour la technique Nouvelle (SGN).<sup>25</sup> SGN signed at least two

separate contracts for the Chashma plant, the first for "basic design" in March 1973 - and the second for "detailed design" and help in actual construction in October 1974.

After three years of "intense negotiations" the reprocessing deal was finalised. The International Atomic Energy Agency gave its approval on 24th February 1976.

Pakistan undertook that none of the reprocessing equipment or the material produced shall be used for the manufacture of any nuclear weapon or to further any other nuclear explosive device. The Pakistanis consented to submit the Chashma plant to international safeguards, including regular visits by IAEA inspectors. They also agreed that the same provisions would apply to any future facility based upon the same type of reprocessing technology, which was defined as any facility using the solvent extraction methods.

The fact that a reprocessing plant, by separating fissionable plutonium from the spent reactor fuel, could help Pakistan embark upon a nuclear weapon programme, caused anxiety in Canada and the USA. Both countries, dismissing as untenable Pakistan's claim that the reprocessing plant was essential for it to become self reliant in peaceful uses of nuclear technology pressed Pakistan to cancel the deal.<sup>26</sup> Pakistan refused to oblige Pakistan's Failure either to call of the reprocessing plant deal or to accept full scope safeguards by the deadline of 31st December 1976 put an end to Canada Pakistan nuclear

cooperation. The Fuel Fabrication plant contract was cancelled.<sup>27</sup> With France also, after a full play of controversy the agreement died in 1979.

The French attitude has been rightly summed up by Kapur:

"The French conduct in Pakistan - France nuclear relations during 1973-78 indicates primacy of commercial and political considerations and subordinations of non-proliferation considerations. Indeed, in the French thinking there was a belief that Non-Proliferation is inevitable".<sup>28</sup>

#### Uranium Enrichment Path

It is difficult to say when exactly Pakistan decided to opt for an alternative route. According to Maulana Kausan Niazi, a former Information Minister, "It was Mr. Bhutto's ploy to have the world attention focused on enrichment route, while the efforts for the centrifuge project had been initiated which indeed went unnoticed for a while. Mr. Bhutto himself wanted to wriggle out from the purchase of the 'white Elephant'."<sup>29</sup>

Two trends can be detected since 1972 in the nuclear activities of Pakistan one is towards reprocessing (1972-75-78) and the other is away from reprocessing from 1978 onwards. After 1978 it had lost its primacy in nuclear affairs. Enrichment became the Primary route after 1978: from 1975 to 1978 both reprocessing and enrichment paths were active.

The Pakistani plan entailed sitting up a pilot plant at Sihala near the road at Kahuta village. A massive industrial unit comprising 10,000 centrifuge units was proposed to be built. No safeguards would apply to either Sihala or Kahuta since Pakistan had not declared the existence of the facilities to the IAEA.

The Pakistanis called their new project "Project 706" and it was directly under the supervision of the then Prime Minister, Zulfikar Ali Bhutto.

The Pakistan then went about buying the various components in different parts of Europe "through resourceful Pakistani agents in Europe with the help of European middle men."<sup>30</sup>

The story of the adoption of enrichment technology revolves around one man Dr. Abdul Qadeer Khan, Director of Engineering Research Laboratory at Kahuta. He was employed with the Research Institute of URENCO, the British Dutch-West German Uranium Enrichment Consortium at Almelo, Netherlands between 1972 and 1975. He was later on sentenced for a four year prison term by the Dutch Government. Many other Pakistanis were arrested during this period for the uranium enrichment plant.

As far as the success of the enrichment programme is concerned, Dr. A.Q. Khan announced in 1984 that Pakistan had succeeded in producing enriched uranium but did not specify the level obtained.<sup>31</sup> Gen Zia in an interview said that Pakistan had enriched uranium to 5 per cent.

On February 6, 1992, Pakistani Foreign Secretary Shahryar Khan used his visit to the 'Washington Post' as the stage for unveiling the news that his country had the components and know how to assemble at least one nuclear explosive device.<sup>32</sup> Whatever may be the level the fact remains that Pakistan is capable of enriching uranium.

### The Politics of an 'Islamic Bomb'

The notion of the Islamic bomb was first publicized in 1981 with the publication of a book called The Islamic Bomb and came to be used in official and media circles.<sup>33</sup> It probably originated in Bhutto's last testament where he associated nuclear weapons states with Christian, Jewish and Hindu civilizations.<sup>34</sup>

Bhutto's rhetorical association between Islamic Civilization and Pakistan's nuclear efforts on the one hand, and Pakistan's increased ties with Muslim countries on the other, led to the Islamic bomb speculation.<sup>35</sup>

In the management of Pakistan's foreign policy after 1971, improving ties with muslim middle Eastern countries became even more important. Bhutto's attempt to strengthen these ties became a significant foreign policy objective for political, diplomatic as well as economic reasons. Political diplomatic considerations were initially predominant. Pakistan shared with Iran the traditional concern over Soviet southward expansion. Their security against this threat in turn was crucial to the safety of the Persian Gulf and its littoral states the area which gained



greater importance in Pakistani foreign policy since Bhutto.

Withdrawal of the British forces from the area in the late 1960s, followed by the application of the Nixon doctrine, demanded greater involvement on the part of the countries for Pakistan to play a role. He hoped to offer Pakistan's security cooperation in exchange for the regional countries' political and diplomatic support. This increase Pakistani foreign policy independence, reinforce its position vis-a-vis India and counter balance India's Influence among the NAM, and possibly improve its standing vis-a-vis Washington. Giving security assistance to these countries could also bring foreign currency into Pakistan.

But the 'Islamic' dimension of Pakistani nuclear efforts, apart from lacking reliable evidence, suffers from several practical, political, and strategic discrepancies. The concept of the Islamic bomb rests on the general assumption that Arab countries favour proliferation in their region and want to acquire nuclear capability. There are reasons to believe that this is not the case. Probably with the exception of an adventurist leadership such as Libya's or an ambitious one like Iraq's which might contemplate acquiring nuclear bombs, a great many Arab countries have good reason to oppose such a prospect. This is particularly true in the case of Pakistan's most important Arab supporters: the oil producer countries of the Persian Gulf.

(b) The Arab countries may not feel any more secure with nuclear bombs in the hands of their present friends

either. The history of friendship among various arab states illustrates the volatile nature of amity in this region. Neither would these countries own security especially in the Arab states of Persian gulf be improved by having access to a Pakistani bomb. Their size and population is such that a single nuclear explosion can cause the total annihilation of their states.

(c) These considerations apart, Pakistani modest nuclear programme makes it impossible to create a sizeable nuclear force. Even by the most generous estimates of Pakistan's nuclear capability, as argued before, the country does not possess the technical, scientific, and material capability for producing more than a handful of crude bombs. Such a capability could hardly have been sold to the Arabs as a means to deter Israel's or any other country's conventional or nuclear forces, particularly in the 1970s and 1980s when the Islamic bomb hypothesis was at its height.<sup>36</sup>

Pakistan was anxious to cultivate ties with the Muslim countries for political strategic and economic reasons. Yet this should not lead us to draw the conclusion that Pakistan's sense of Islamic brotherhood would work against its own national interest. Spreading nuclear bombs poses many types of risks to Pakistan.

Therefore, considering Pakistan's own strategic interests and the politics of the Middle East, it is unlikely that either Pakistan or its Arab associates would

favour proliferation of an Islamic nuclear force. Whether these countries are able to influence Pakistan's nuclear decision is not clear. It is nevertheless, very unlikely that their friendly ties would not be adversely effected if Pakistani bombs were to be dispersed in the Middle East.

### Role of United States

Two main considerations continued to make ties with the U.S. desirable to Pakistan: the U.S. assurance of protection against the perceived threat from the Soviet Union, and the U.S. assistance to its defence capability, needed to deter India. The U.S., for reasons to its defence capability, needed to deter India. The U.S., for reasons of its own, has shown an eagerness to assist Pakistan in these respects which have been manifested more dearly than ever since the Soviet intervention in Afghanistan.

This relationship, however, has fluctuated from time to time depending on each country's perception of the threat to Pakistan's security and the extent of assistance has depended on such fluctuations. The existing nuclear option in this context, might be a useful leverage if exercised effectively at the right time. President Bhutto first used the threat of going nuclear after the Indian explosion. A nuclear option might also be useful to Pakistan in furthering a U.S. engagement in any future military conflict in the subcontinent. To Pakistan's disappointment, the U.S. disengaged itself from previous Indo-Pakistani mass. As Pakistan was concerned, the U.S. even failed to

come to its help in the 1971 war when its territorial integrity was at stake. With the threat of Pakistan using its nuclear bomb in a future war as a weapon of last resort, the U.S. would have more difficulty in disengaging itself from future conflicts. Fluctuations in U.S.-Pakistani relations since the mid-1970s illustrate that Pakistan's nuclear option did not significantly increase its leverage over the U.S. A brief review of the U.S. Pakistani relationship will help to clarify this point.

The Carter administration came to power committed to fight nuclear proliferation, opposition to Pakistan's nuclear efforts became a testing ground for the success of that policy. Washington refused to sign any new agreement with Pakistan after July 1977.<sup>37</sup> Later in 1978 the Carter Administration enacted the Symington Amendment which provided for a cut off of U.S. aid to countries trying to acquire nuclear weapons. On that basis Washington cut off aid to Pakistan as of April 1979 (owing to the latter's alleged acquisition of an enrichment facility at Kahuta).

Yet strained U.S. Pakistani relations during this period should be blamed only partly on the U.S. non proliferation priority but largely on the fact that Pakistan had lost its importance to the U.S. in South Asia to new opportunities.

Similarly, an examination of U.S.-Pakistani relations after 1979 indicates that strategic considerations rather than the non proliferation objective shaped the

relationship. Towards the end of 1979, Washington altered its policy and began negotiating with Pakistan a renewed military and economic package, in spite of Pakistan's continued efforts to require an enrichment facility. This administration, too, turned to the old argument that security assistance would reduce the incentive for going nuclear (apparently the U.S. only warned Pakistan that a nuclear test would end any renewed aid). In January 1980, Washington offered \$ 400 million aid, even though it required the President to obtain emergency exemption from the Symington Amendment. President Zia turned down this offer as being 'peanuts'. Shortly after, the Regan Administration, offered a \$ 3.2 billion aid package over six years.<sup>38</sup>

These dramatic changes did not result from any public shift in either the U.S. non proliferation policy or in Pakistan's nuclear option. They resulted from the political strategic developments which had taken place in South Asia.

With the change of regime in Iran in February 1979, the U.S. position in Iran became uncertain. This was followed by the Soviet military intervention in Afghanistan in December of that year with these developments U.S. had little choice but to rely on Pakistan at the defence of setting aside its non proliferation priority.

### **Chinese Assistance**

Pakistan's efforts to obtain nuclear weapons have gone

well beyond its production of highly enriched uranium. U.S. officials believed it had been actively working on nuclear weapons design problems and on the high explosives triggering mechanism for atomic weapons. Indeed, in July 1984, three Pakistanis were indicated in Houston, Texas, for attempting to ship electronic parts to Pakistan that are used in such mechanisms.<sup>39</sup>

The People's Republic of China is said to have helped Pakistan both in obtaining nuclear weapons material and in designing nuclear arms. Reports of such aid surfaced in 1982 when James Malone, Assistant Secretary of the State for Oceans and International environmental and scientific affairs, stated that the United States was concerned about China's relationship with Pakistan, Malone is reported to have said further, that China had apparently supplied Pakistan with material "other than fuel-related items" which he declined to specify. A month later, a separate press account stated that government officials were "disturbed by intelligence reports suggesting that China had raped Pakistan in trying to develop a capability to enrich uranium for weapon use."<sup>40</sup> the implication was that China had given Pakistan technical information on the enrichment process.

In early 1983, a still more troubling report surfaced that China had provided Pakistan with sensitive information concerning the design of nuclear weapons themselves. A June 1984 report, however, indicated that China had actually given Pakistan the design for the weapon used in China's fourth nuclear test, a low yield uranium

device detonated in 1966. If either report were true, it would mean that Pakistan could have confidence in its nuclear weapons without conducting a test, thus enabling it to avoid the termination of U.S. assistance. Indeed, this may have been the basis for Abdul Qadir Khan's statement in February 1984 that Pakistan could achieve a nuclear capability without a test. China, denied that it had validated a Pakistani nuclear weapon.

### The Nuclear Non Proliferation Treaty and Pakistan

Perhaps the most important of all nuclear issues and certainly the most important nuclear issue in the region is the nuclear Non Proliferation Treaty which was mooted by the United States to include the then potential industrial powers such as Japan and West Germany, which might have posed a threat by acquiring nuclear weapons.

At the subsequent sessions of the U.N. General Assembly in 1959, 1960 and 1961 the Problem was discussed by the world body and a number of resolutions were adopted recognizing the dangers inherent in the spread of nuclear weapons. Pakistan and India supported the various Irish and Swedish proposals that were considered by the General Assembly and voted for all related resolutions.<sup>41</sup>

In the discussions on these resolutions the two countries expressed their anxiety over the imminent dangers posed by the wider dissemination of nuclear weapons and pleaded for a treaty prohibiting the growth of nuclear club.

Thus addressing the 17th session of the General Assembly, President Ayub said "The imminent peril demands that the General Assembly gives urgent consideration to the conclusion of a treaty to outlaw the further spread of nuclear weapons and the knowledge of their manufacture. "Pakistan maintained a continuity in its policy in the subsequent years.

But the change came soon after the change in Indian Policy after the 1964 Chinese detonation. At the 20th Session of the General Assembly the Pakistani delegate, Agha Shahi, opposed the Indian demand for "an acceptable balance of mutual responsibilities and obligations of the nuclear and non nuclear powers."<sup>42</sup> India's criticism came in the wake of the 1965 Indo-Pak war.

The nuclear Non Proliferation Treaty was put to vote in the General Assembly Session held between 4th April and 12 June 1968. Of the 122 non nuclear weapon states present, only 94 voted for it, however, the majority did not ratify it.<sup>43</sup>

Pakistan described the treaty as a landmark in the history of negotiations on arms control and disarmament measures. On 25th April 1968, the Pakistan Foreign office expressed its "full sympathy" with the draft. Pakistan's response to the nuclear non-proliferation treaty, quite different from that of India, was first conveyed to the First Committee of the General Assembly in May 1968 by Agha Shahi. It welcomed the submission of the text of the draft



treaty on non-proliferation of nuclear weapons by the U.S. and the Soviet Union. It also praised the two super powers and the U.K. for reaching such an agreement.

However, while expressing support for the objectives of the NPT, Islamabad refused to sign it once it was open for signatures. The official Pakistan statement regarding the decision did not link its action to the Indian posture, but the implication was clear the Pakistani refusal was a consequences of Indian rejection of the treaty. It was emphasized that for the treaty to gain adherence, it must be able to prevent all future proliferation and that the attitude of near nuclear countries was of crucial importance. The treaty must ensure that "there will be no addition to the five power nuclear club. Once there is a sixth member there is no nuclear non proliferation. Even if almost all nuclear weapon states signed the treaty, and the near nuclear weapon states do not, the purpose of the treaty would be defeated."<sup>44</sup>

The official reaction explicitly linked Pakistan's action to the Indian attitude towards the NPT, soon after the 1974 peaceful nuclear explosion by India, Pakistan said that it (Pakistan) would never permit India's hegemony. Bhutto had said: "we cannot see the relevance of this nuclear exercise to the immediate political setting ... India has shattered the nuclear non proliferation treaty".

Thus, there is a radical change from total support to the non proliferation treaty and acceptance of it in the light of ensuring undertaking the unequal aspect more than

over, from proposing that the nuclear weapon states, it has begun supporting the "inherent rights" of the non-nuclear weapon states to benefit from the peaceful use of nuclear technology on a non discriminatory basis.

The reason for this is obvious, Pakistan today is on the threshold of nuclear weapon capability. The nuclear capability as given it the confidence and a better reason to 'champion' the cause of non nuclear weapon powers.

Pakistan remains a non signatory to the treaty. Even while Pakistan had not signed it because India, the source of its main concern had not done so.

In line with this changed attitude explained earlier in the discussion of its attitude towards the NPT in General, Pakistan has off late talked of the "right of non nuclear weapon states." Talking about the implementation of the NPT, the delegate said: 'Pakistan has been consistently advocating the strengthening of a non proliferation regime on a regional and global basis and has taken several initiatives for this purpose, we believe that concern for non-proliferation should not militate against inherent right of the developing countries to benefit from peaceful nuclear technology on a universal and non-discriminatory basis.<sup>45</sup>

Thus, there are two definite trends in Pakistan attitude to the NPT:

(1) From 1968 to mid-1970s

Pakistan in this phase accepted the NPT in principle, but could not accept it "till it commands unqualified

adherence by all, especially the new nuclear countries."<sup>46</sup> Kapur argues that Pakistan's line of action was clear: "reject the NPT" and 'none'.<sup>47</sup> The argument that Pakistan's nuclear activities during the 1980s were determined by its fears about bigger and militarily stronger, culturally or ideologically threatening and nuclear India is not correct: In fact, there is no inconsistency in Pakistan's anti India posture in both the phases. Secondly, in the 1960s India itself had not taken any decision on conducting a nuclear test.

(ii) From Mid-1970s to present

Pakistan has criticized the very objectives of the NPT, as discussed earlier, calling it discriminatory and since the 1970s it has laid emphasis on the securities guarantees, rights on non nuclear weapon states. The most starting fact is that despite calling the terms discriminatory it has expressed the view that it would sign the treaty "the minute India does so." There is thus no divergence so far as the "signing if India does so" posture is maintained.

While there is no contradiction in phase I (1968 to mid-70s), Pakistan's attitude to the NPT in the Second phase is self contradictory. How can the treaty, which it thinks is discriminatory, become acceptable if India adheres to it? This trend of making adherence conditional is in confirmity with its stand on the nuclear weapon free zone proposal, mooted in 1978, the time the bomb decision was taken.

After the entire clandestine operation of nuclear explosion by Pakistan is known, a nuclear explosion by Pakistan would not be taken as a peaceful nuclear explosion. India, despite the best of its intentions, is suspected internationally. It would suffice to say that Pakistan, would do well to learn from India, for the repercussions there would not be very different.

### Pakistan's Nuclear Status

On 24th August 1994, former Pakistani Prime Minister Nawaz Sharif declared that Pakistan possesses a nuclear Bomb. Before that also on February 6, 1992, Pakistani Foreign Secretary Shahrayar Khan used his visit to the Washington Post as the stage for unvelling the news that his country had the components and know how to assemble at least one nuclear explosive deice. He thus confirmed the existence of the very program that had forced the Bush administration in October 1990 to end US "blind eye approach" to aid programs for Pakistan. Khan also told U.S. officials that Pakistan would not explode such a device or transfer nuclear weapons technology to other countries.<sup>48</sup>

Various sources indicate Pakistan's program most likely began in the mid 1970s under Premier Zulficar Ali Bhutto and produced an initial weapon capability when his daughter was Prime Minister Top Pakistani officials say privately that while President Ghulam Isaq Khan had control over the program when final decisions were made in 1989 and

again in 1990, one of Benazir Bhutto's top aides attended the crucial meetings and kept her informed as Pakistan decided to cross the nuclear threshold lines set forth by the United States as barriers to further aid.

Experts estimate Pakistan has developed the capability to enrich enough uranium to produce five or six nuclear weapons per year. But no Pakistani official to date has discussed how many weapons might now be in pre assembly stage, and Pakistan denies that U.S. made F-16 air craft have been converted to nuclear strike configuration. Islamabad has told Washington that it has not enriched any uranium above the 20 per cent level since 1990 or engage in any other weaponization activities like shaping metal into weapon cores or converting enriched uranium into metal. Pakistan has also expressed willingness to sign the nuclear non proliferation treaty (NPT), established a nuclear weapons free zone and accept full scope safeguards provided India does the same. But Khan told the post, Pakistan would not destroy its weapon cores or roll back from its current capability without reciprocal Indian measures. Given India's well known positions on such proposals, Islamabad's sincerity has not been tested.

Now that Pakistani leaders have gone public with their nuclear program, it is far more difficult to reverse it because, for most Pakistani's the program tends to symbolize national sovereignty and pride in standing upto the world, and especially the old "colonial powers". In sum Pakistan's nuclear program is viewed by its supporters as

the "great equalizer" in the face of India's eight to one population advantage. Abandoning their program would further be seen by Pakistanis as surrendering to (neo colonial) western pressure while leaving them without proper counter to the perceived Indian threat.

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## C H A P T E R - I V

### CONCEPT OF A NUCLEAR WEAPON FREE ZONE IN SOUTH ASIA

The concept of establishing Nuclear Weapon Free Zones in different parts of the world is not new. The efforts to control proliferation of Nuclear Weapons to other countries began with the advent of the atomic age itself. Efforts were made to somehow stop dissemination of knowledge to, and acquisition of materials and technical know how by other countries. However, this could not be accomplished Nuclear Weapons did proliferate and were acquired by the USSR, UK, France and China subsequently. Attempts nevertheless continued relentlessly and found expression in strategies aimed at preventing, controlling managing and at times physically destroying acquisition of such capabilities. The concept of NWFZs and NPT emerged to put into practice the strategies mentioned above. The concept of NWFZs went a step further in that it aimed at pre-empting the threat of proliferation at any time in the future.

The concept of a nuclear weapon free zone is in essence, one of deceptive simplicity. It consists, in theory, of the establishment of geographical or spatial area within which states acting either unilaterally or more commonly, in concert, undertake to renounce the holding, manufacture or use of nuclear weapons. In a sense the NWFZ is the intellectual legatee of the demilitarized zone, a much older concept, but one, which extends beyond the

notions of simple nuclear disarmament within a defined geographical area.<sup>1</sup> Demilitarized zones have been notoriously unsuccessful and have frequently fallen prey to shift in regional power structures, changes in weapons technology, breach and failure of verification procedures. It is feared in some quarters that NWFZs may well fail for the same reasons.

### Definition and Development of NWFZs

The idea of creating a geographical zone in which the manufacture holding or use of nuclear weapons would be prohibited was first mooted formally by the Soviet Foreign Minister, Andrei Gromyko, before the Sub Committee of the U.N. Disarmament Commission in March 1956.<sup>2</sup> With the burgeogining of nuclear weapons and states possessing nuclear weapons capability in the 1960s and 1970s, the concern with the problems of proliferation extended beyond purely European horizons and a number of proposals for the denuclearization of various geographical regions emanated from a variety of sources, but more particularly the CCD (Committee on Comprehensive Disarmament) such proposals have been transmitted to the General Assembly and that body, through its resolution has called for the creation of NWFZs in various areas. Proposals and calls for NWFZs have been made for the Balkans, the Baltic, Asia, the Pacific, Africa, the Scandinavian countries the middle east, South Asia and the South Pacific and Latin America but only in the two latter regions has significant progress been made.

In 1974, however, the General Assembly by Resolution 3261 (XXIX) decided to undertake a comprehensive study of NWFZs. The body charged with carrying out the study was an ad-hoc group of qualified governmental experts acting under the auspices of the CCD.<sup>3</sup>

The creating NWFZs, the ad-hoc group of experts recommended that certain guiding principles should be taken in the account. These principles were expressed as follows:

- obligation relating to the establishment of a nuclear weapon free zone might be assumed not only by group of states constituting entire constituents, but also by smaller groups of states and even individual states.

- Nuclear weapon free zone arrangements must ensure that the zone remains effectively free of all nuclear weapons.

- The initiative for the creation of a nuclear weapon free zone must come from the states in the region concerned and must be voluntary.

- Whenever a zone is intended to embrace a region, all militarily significant states, and preferably all states, in that region would enhance the effectiveness of the zones.

- The zone should have an effective system for verification to ensure compliance with agreed obligations.

- The arrangements should promote the economic, scientific and technical development of the members of the zone through international cooperation in all peaceful uses

of nuclear policy.

- The treaty establishing the zone should be of unlimited duration.<sup>4</sup>

The creation of a NWFZ depended solely on the conclusion of a treaty by states, in particular nuclear weapon states, thus, although from a legal stand point, the objective existence of an NWFZ did not depend upon either recognition or guarantee by nuclear weapon states, nevertheless such recognition and guarantee would enhance the effectiveness of NWFZ, by giving states within them security from nuclear attack.

The report of the group of experts was broadly welcomed by the General Assembly, but there were differing views on the question of the negative security assurances and guarantees to be given to states within a NWFZ by extra regional weapon states.

Coupled with the presentation of the report of the ad-hoc group by the CCD to the UN General Assembly was a draft resolution sponsored by Mexico which purported to define the concept of an NWFZ and the principal obligations of NWFZs towards such zones and states included therein. Although there was little disagreement about the definition of an NWFZ in the draft resolution, the major nuclear weapon states could not agree on the limits of the principal obligation to be imposed upon them. Britain, France and the U.S. voted against the resolution and the then USSR abstained. General Assembly resolution 3472 (XXX) provides:

1. Definition of the concept of the Nuclear Weapon Free Zone:

'A nuclear weapon free zone shall as a general rule be deemed to be any zone, recognized by the General Assembly of the United Nations, which any group of states in free exercise of their sovereignty has established by virtue of a treaty or convention whereby:

(a) The status of total absence of nuclear weapons to which the zone shall be subject, including the procedure for the limitation of the zone, is defined,

(b) In International system of verification and control is established to guarantee compliance with obligations deriving from the statute.

Although the above definition of an NWFZ is so vague as to have made it generally acceptable to nearly all states. It fails to deal with crucial issues such as the proper territorial limit of such zones (i.e. whether they can extend over contiguous zone, high seas, international straits and international air space).

The effect of the resolution 3472 is difficult to gauge clearly it has no legislative or even quasi-legislative effect<sup>5</sup> but does indicate the thinking of both nuclear and non-nuclear weapon states in relation to the creation, status and guarantee of NWFZs. What emerges is that the majority of states consider NWFZs created by the treaty to be both viable and desirable in terms of

strengthening peace and security in the world and stemming the proliferation of nuclear weapons. It is also plain that the nuclear weapon states, by giving support to NWFZs in principle, but by refusing to give concrete guarantees and assurances to states parties to treaties creating such zones do not wish to have their hands tied when the use of nuclear weapons or their threatened use, may be tactically desirable.

Although state practice of nuclear weapon states in relation to NWFZs is hard to find, the statement which do exist, tend to confirm that although such states regard the creation of NWFZs as being compatible with international law, they are for other states rather than themselves and they should not effect their security that the creation of NWFZs is permitted by international law is made apparent by Article VIII of the NPT, 1968<sup>6</sup> which provides:

"Nothing in this Treaty affects the right of any group of states to conclude regional treaties in order to ensure the total absence of nuclear weapons in their respective territories."

Although the article establishes that the NPT recognises the right of states to conclude agreements creating NWFZs. It does not define in concept nor indicate the limitations which may be placed on their geographical scope.<sup>7</sup> Some evidence of this may however, be gleaned from the discussion which took place in General Assembly in 1967 concerning the creation of the Latin American and Caribbean NWFZ by the Treaty of Tlaleloko.<sup>8</sup> In the debate the US

stated that four requirements had to be met before an NWFZ could be said to have been properly created. First, the initiative for an NWFZ had to originate within the area or region concerned. Second, the zone had to include all states deemed militarily important. Third, the creation of such a zone was not to disturb necessary security arrangements, and fourth, the treaty creating the NWFZ had to have provisions permitting follow up of alleged violations, in order to give reasonable assurance of compliance.

In spite of the limited amount of state practice available, it may nevertheless be possible to provide a working definition of an NWFZ, as it is presently understood. It is an area of territory, including internal, archipelago and adjacent territorial water and superjacent air space, in which manufacture, testing emplacement or may be even possession or control of nuclear weapons is prohibited. It may also include prohibitions on the supply of material which may be used in the manufacture of nuclear weapons, and on the dumping of nuclear waste. The Prohibitions do not usually extend to possession or radioactive material for peaceful means, for example, under the authority of IAEA.<sup>9</sup>

### **The Value of NWFZs**

The motives behind the calls for NWFZs vary from region to region. The motivation common to all zones is the belief among states that they would be more secure if their region were free of nuclear weapons. The US Soviet nuclear arms



race prompted many countries to fear that they could fall victim to the consequence of nuclear war despite their non nuclear status. For example the Cuban missile crisis in October 1962 was a watershed event in the development of NWFZs because the non-nuclear weapon states in Latin America realized how close the world had come to nuclear war, and how the presence of nuclear weapons in their region put them directly at risk. In the wake of that crisis these states moved to negotiate the Treaty for the prohibition of nuclear weapons in Latin America commonly called the Treaty of Tlatelolco which bans nuclear weapons from the entire area.

Both existing NWFZ treaties, Tlatelolco in Latin America and the Treaty of Rarotonga in South Pacific, express a desire to remove the threat of nuclear war from their respective regions, to contribute to global elimination of nuclear weapons through regional measures and to prevent the proliferation of nuclear weapons. Both agreements also refer to the value of NWFZs in building regional confidence and security.<sup>10</sup>

NWFZ agreements have several additional features of great value. For example, while requiring obligations similar to those of the NPT, they offer an alternative to States that have rejected NPT membership because of its perceived discriminatory nature. The clearest examples of this are Argentina and Brazil, which have refused to join the NPT, in part because of its permanent distinction between nuclear weapon and non nuclear weapon states, but

which are now moving to implement the Tlaleloco agreement and have accepted international Atomic Energy Agency (IAEA) safeguards identical to those required under the NPT.

A final positive feature of the NWFZs is that the very process of working to create one can have a beneficial effect. As with Arms control in general, the negotiating process, with its direct contacts, increased communication and a stated desire for argument, can help allay, suspicions, increase transparency and build confidence among neighbours.

#### **Pakistan's stand and Proposal for an NWFZ in South Asia**

On 28th October 1974, Pakistan introduced in the First Committee of the UN General Assembly, a resolution which sought to endorse, in principle, the concept of a nuclear weapon free zone in South Asia and requested the Secretary General to convene a conference of South Asian states for the said purpose, which raised many questions like- What motivated Pakistan to introduce the proposal? And why only in 1974 and not earlier? Why did Pakistan not consult the South Asian countries before taking the matter to the General Assembly of United Nations? Why did Pakistan ask for a conference under the initiative of the Secretary General? What were the reasons behind India's rejection of the Pakistani proposal and its decision to introduce a separate resolution on the subject? And finally, what are the prospects for a South Asian nuclear weapon free zone.

Speaking in favour of the aforesaid resolution

3265 (XXIX) the Pakistani Representative said that his country's Prime concern at that juncture was: (1) security of the non nuclear states viewed in the contest of spiralling nuclear proliferation by nuclear countries and by countries which have just joined the nuclear club; and (2) to strengthen the prospects of security of non-nuclear states.

In analysing Pakistan's motivation it may be mentioned at the very outset that the Pakistani proposal was a violation of principle three of the UN Study which categorically refers to the need for obtaining a regional consensus before such proposals are brought before the U.N. On the other hand, Pakistan requested the Secretary General of the UN to convene a conference of South Asian States. The reason behind such a tactical move by Pakistan are not hard to unravel. Although Pakistan proposal ostensibly talked of the dangers of nuclear proliferation by nuclear powers, it was actually prompted by India's nuclear explosion of May 1974. Pakistan felt that entry of India into nuclear club meant a threat to its own national security.

Pakistan wanted to put a blanket ban on India's further nuclear activities and presumably one effective way of achieving such a ban on India's nuclear activities would be through the world body and the Secretary General. That would explain Pakistan's insistence on an intervention by the Secretary General Pakistan earlier used CENTO and Islamic conference forums to raise the issue of the dangers of India's nuclear explosion and thereafter used the United

Nations forum to confront India.<sup>12</sup>

The India factor in Pakistani thinking can be further understood by recalling that ever since 1947, Pakistan has consistently struggled to project an image of parity with India. India's population, area, resources and industrial development being overwhelmingly disproportionate, Pakistan first tried to invoke the countervailing American power to redress the imbalance vis-a-vis India and joined the western military alliance system to seek military parity with India. In perception of the Pakistani leadership, the 1971 war decisively established India's superiority in the sub-continent.<sup>13</sup> India's nuclear explosion further widened the gap between the two countries, added to Pakistan's paranoid fears and forced its leadership to advocate a nuclear weapon free zone in South Asia. This is clearly evident in Bhutto's reply to Mrs. Gandhi's letter, written immediately after Indian explosion. To quote Bhutto:

"It is not only a question of intention but of capabilities. It is well established that the testing of a nuclear device is no different from the detonation of nuclear bomb. Given this indisputable fact, how is it possible for our fears to be assuaged by mere assurances, which may in any case be ignored in subsequent years. But the acquisition of capability which has direct and immediate military consequences becomes a permanent factor to be reckoned with.<sup>14</sup>

Earlier in his book "The Myth of Independence" Bhutto wrote, "India is unlikely to concede nuclear monopoly to others, it appears that she is determined to proceed with the plan to detonate a nuclear bomb"<sup>15</sup> If we add to this Bhutto's rhetorical statement that if India manufactures the bomb, "we will eat leaves and grass, even go hungry, but we will have to get a bomb of our own."<sup>16</sup> One can very well understand the compulsion on the Pakistani ruling elite. India's explanation that the explosion was for peaceful purposes evoked the typical reaction that they did not believe in any such thing as peaceful nuclear explosion.<sup>17</sup> Ironically in recent times, Pakistan is giving the very same explanation to cover their nuclear efforts which do not readily fit in with the broad stream of their nuclear activities, like the enrichment of uranium.

After 1974, Bhutto complained about the problem of Indian nuclear blackmail but in his meetings with US leaders he wanted to acquire more sophisticated conventional arms i.e. he sought to strengthen the conventional military mechanisms in response to the Indian threat perception. Secondly, Pakistan strengthened its international nuclear diplomacy by arguing for a South Asian nuclear Free Zone. In other words, unlike the case of Latin America but somewhat on the model of middle East and South Africa, this NWFZ proposal is to cover countries which had an active adversary relationship.

## India's Position

India's position in regard to Pakistan's proposal was highlighted by its representative in the United Nations. Brajesh Mishra said: "We have supported such zones whenever it has been demonstrated that there is an agreement in regard to them in particular region. This means prior consultations and agreements among the states of the region.

Conceptually speaking, India found it difficult to accept the idea, as outlined in the beginning as an extension of the non-proliferation treaty, the objective of both being to deny nuclear status to the non nuclear countries and legitimise nuclear weapons in the hands of the nuclear weapon powers by projecting them as guarantors of security against nuclear threat. It is this legitimacy of nuclear weapons in the hands of nuclear weapon powers of which India has been fighting ever since the NPT came to be proposed.

Indian rejection of the Pakistani resolution had certain security reasons behind it. It is well known that the Pakistani resolution aimed only at South Asia and excluded China deliberately. This was perceived in India as yet another instance of Pakistani collaboration with an external power to countervail India, given the fact that India faces threat to its security from Nuclear China with its ICBM capabilities. The Pakistani proposal is not only unacceptable but creates justified apprehensions in the Indian mind. India therefore insisted on a regional

consensus on the subject before the matter could be taken to the U.N. This was clearly reflected in the Indian resolution 3265A (XXIX) which read as follows: "The initiative for the creation of a nuclear weapon free zone in the appropriate region of Asia should come from the states of the region concerned taking in account its special features and geographical extent."

Pakistan has repeated its resolution annually in the U.N. and pleaded its case for a South Asian Nuclear Weapon free zone vigorously since 1975.

The Indian stand remains that proposals for weapon free zones can succeed only when nuclear weapon powers also agree to denuclearise and nuclear weapons are delegitimised by the international community. On 14th December 1948, India along with 34 countries sponsored a resolution in the UN General Assembly. It contained the following:

- (a) The use of nuclear weapons would be a violation of the charter of the U.N. and crime against humanity, and
- (b) The use of nuclear weapons should therefore be prohibited pending nuclear disarmament and requesting states, particularly nuclear weapon states, to submit to the Secretary General before the 34th Session of the General Assembly, proposal concerning the non use of nuclear weapons, avoidance of nuclear war and related matters.<sup>18</sup>

As many as 103 nations voted in favour of this resolution including all the nations of the sub continent China abstained and the other three nuclear weapon powers

voted against. The approach underlying this resolution was to delegitimise nuclear weapons and to bring about an international convention banning them. This approach was contrary to any move which accords legitimacy to nuclear weapons. This is the reason why India is unable to support the proposal for a nuclear weapon free zone or guarantee which tend to legitimise the possession of weapons in the hands of a few nuclear weapon powers and their use in war. It is understandable that the so-called arms control lobbies, the western strategist and even the peace research institution, which generally accept the western framework of strategic thought, should all espouse the case of nuclear weapons free zones in an attempt to legitimise nuclear weapons. In fact, the diapolitical attempt has so far been to circumvent the basic UN objectives of outlawing the weapons of mass destruction (biological, chemical radiological and nuclear) and legitimise the most horrendous of the weapons of mass destruction, namely nuclear weapons. While there is already a convention to outlaw the use of biological weapons and the nuclear weapon powers and the crypto nuclear weapon powers have launched a massive campaign to legitimise them nuclear weapons. The NPT and the nuclear weapon free zone proposal are steps in this campaign. This is the reason why India has rejected categorically both these proposals and is attempting to focus attention on the issue of declaring the use of nuclear weapons as a crime against humanity and to have outlawed



alongwith other weapons of mass destruction.

India on the other hand has supported the proposal on the declaration of the Indian Ocean as a zone of peace (G.A. resolution 2832 (XXVI)).<sup>19</sup> This resolution was first proposed by Sri Lanka in the 26th Session of the G.A. in 1971. It calls upon the major powers to enter into negotiations with the 'Littoral States of the Ocean' to halt the further escalation and expansion of the great powers military presence in the Indian Ocean and to eliminate from the Ocean all bases, military installations, longistical supply facilities, nuclear weapons and weapons of mass destruction.

#### **The Greater South Asia Nuclear Weapon Free Zone**

India is unwilling to accept any comprehensive nuclear non proliferation arrangements limited to the Indian sub continent. A restricted regional arrangement does not address Indian concerns about China or about any super power nuclear weapons in the Indian Ocean. For this reason India has rejected Pakistan's proposal for a South Asia weapons free zone comprising just the sub continent.

It is possible, however, to envision a nuclear non proliferation arrangement that would address many of India's strategic and political concerns. Such an arrangement might entail a "Greater South Asia Nuclear Weapons Free Zone" an agreement prohibiting the deployment of nuclear weapons in India. Pakistan, Tibet and adjacent areas of China, and in parts of the Indian Ocean.<sup>20</sup>

For India, a greater South Asia Nuclear Weapons free zone involves trading an unexercised nuclear option for an arrangement that : (1) keeps Pakistan away from acquiring nuclear weapons; (2) reduce the nuclear threat from China; and (3) Limits Super power nuclear presence in the immediate vicinity of the sub continent. It is unclear whether Indian strategic planners would see this as sufficiently attractive deal to pursue even though, the nuclear option perse has little deterrent effect.

### The Imperatives of an NWFZ in South Asia

In establishing a NWFZ in South Asia the characteristic of the region as specified by the 1978 final document of the first special session of the UN General Assembly developed to disarmament, must be taken into account. The security environment of the region is not conducive to the establishment of an NWFZ for the simple reason that the security concerns of the countries of the region vary too much and so do the states. There is no parity nor there is any hope for it in the future. India in practical terms cannot be equated with any of its neighbours. This should not be taken as arrogance. It is a fact that cannot be ignored.

It should be established in the free exercise of their sovereignty without any pressure from outside. It should originate in the region itself as a result of consensus amongst the states of the region. That this has

not happened is well known. It is the U.S. pressure which has brought this about and the security concerns of India have not been taken into account. It does not enhance the security of India - a major country of the region.

What is important is that pressure tactics and duplicity of approach be dropped if peace and denuclearisation of the world are the objectives. To build confidence it is essential that:

(1) The nuclear haves discard these weapons for all times and accept non use of them in any circumstances;

(2) In order to stop proliferation, they themselves must cease to manufacture these weapons altogether. The controls must be imposed equally on all (the haves and the havenots). If there are any technical problems and constraints to taking that step at this juncture then the reasons must be clearly enunciated and explained. A time bound programme to eradicate them must be clearly spelt out and broadcast to the world.

(3) A new world organisation to suit the needs of the present times is devised or wide ranging structural changes are brought about in the United Nations organisations. Perhaps the time has come to go back to the times when both US and USSR proposed revolutionary disarmament programmes.<sup>21</sup> India itself had tabled an action plan for ushering in a nuclear weapon free and non violent world order at the Third special session of United Nations General Assembly devolved

to disarmament in 1988.<sup>22</sup> We may go back to the very first Resolution 1358 (XIV) of November 1959 in which the Assembly unanimously declared that the goal of disarmament efforts in this nuclear age can be none other than the achievement of general and complete disarmament under effective international control. It must cover all countries and apply to all weapon system and all nations have a responsibility to ensure that it is effectively implemented.

### Nuclear Weapon Free Zone in South Asia

In the light of available experience, it should not be difficult to visualise the contours and contents of a nuclear weapon free zone in South Asia. Such a zone in South Asia would definitely mean (1) the political strategic, defensive and offensive implication of such a zone do not impinge upon the US (primarily), (2) an area where geographically the US and western interest are not undermined; and (3) it should in no way affect the freedom of action and the capacity to act in any manner they choose to act in. A treaty therefore, to turn South Asia into a nuclear weapon free zone would be easy to draft, one would only have to isolate areas of the US and western interest. Such a zone would be even more worthwhile if China could be roped in. For that, the western nations may be willing to take into account the reach of nuclear weapons as demanded by India. This might mean removing certain weapons of a particular range from certain geographical areas of China bordering India. In order to convince China, the other NWS

might accept some limitations related to the range and the reach of nuclear weapons and may even accept scrapping of certain weapon systems in the initial text which could be subsequently over ridden at the time of ratification.<sup>23</sup>

To conclude, it can be said that Pakistan's arms control diplomacy in general and non proliferation in particular continued to pursue a central objective almost consistently from the early 1960s: that of supporting a measure which would primarily halt proliferation of nuclear weapons in India within the General framework of non proliferation in NNWS or in the sub continent.

The importance of India's position in influencing that of Pakistan was manifested in the latter's proposal in 1974 for the declaration of South Asia as a Nuclear weapons free zone. Pakistan all along used this diplomacy to single out India as the only super power in South Asia with weapons intentions. India in fact favors the Idea of Global elimination of nuclear weapons.

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## C H A P T E R - V

### C O N C L U S I O N

A major problem faced by the post Hiroshima world has been the spread of nuclear weapons and their control. The immediate solution suggested by the U.S., which was the sole possessor and user of nuclear weapons, was to submit all nuclear weapons and technologies related to them, to an international body. But this proposal was rejected by the USSR stating that states do not trust each other in the climate of distrust and rivalry. Ever since the two Big power gained position of nuclear weapons, this has been the persistent pattern of behaviour among nuclear as well as non nuclear adversaries.

Initial diplomatic efforts towards nuclear disarmament were followed by a period of total secrecy surrounding nuclear technology. This period was short lived. The 1954 US 'atoms for peace programme' marked the beginning of a new era during which the spread of nuclear knowhow, technology and material came to be encouraged on the assumption that the peaceful atom is separable from the non peaceful one. It was only some ten years later that the international community came to attend seriously to the risks of proliferation involved in the spread of nuclear technology for civil purposes. This led to the conclusion of the Treaty on the non proliferation of nuclear weapons in 1968. In the meantime however, many countries acquired a degree of nuclear expertise without agreeing to join the NPT



or any other non proliferation regime. This added to the persistence of adversarial behaviour and implied that the threat of proliferation was there to stay. Thus neither the fear of proliferation nor contemplation of the issue has diminished.

The present trend continues giving birth to serious consequences of nuclear weapons proliferation in the Indian subcontinent. Indian and Pakistani elites have shown some deliberation in their decision to use force. Military encounters in the past have been followed by quick return to normalcy. Indians and Pakistanis are always calculating and usually difficult with each other. These perceptions underscore a process of slow conscious and controlled nuclearisation of Indian subcontinent.

Both India and Pakistan have strong incentives to practice calculated nuclear ambiguity, that is, neither to adopt a nuclear weapons stance nor to a purely non nuclear posture. This, of course is a type of behaviour distinguishing these two countries, and other near nuclear states from the five Nuclear Weapons States (NWS).

In such pre-bomb diplomacy, not only the threat to go nuclear under select conditions is useful in peacetime. Moreover the option for conversion to nuclear weapon state remains open, should a military crisis change adversely affect the national interest. A study of nuclear ambiguity therefore requires careful assessment of external and domestic settings of pre-bomb diplomatic practitioners.

After going through the study of various elements of India's nuclear behaviour in chapter II, Certain conclusion may be arrived at. First, India possesses a nuclear weapon capability, demonstrated by its 1974 nuclear test and since enhanced it since then by progress in its space programme. Its ballastic laboratories, space programme and research reactors are not subject to inspection by I.A.E.A.. It also possesses reprocessing capability. Secondly, while the Chinese threat did not motivate India to go for nuclear arms, it did motivate India to develop the nuclear option. At present, China can be contained by conventional military means. Thirdly, India's rejection of the NPT couched in legal and philosophical terms, 'used the argument of discrimination. This argument was real and hard to dismiss, but primary motivation for rejecting the NPT was to keep the nuclear weapons option open against China, since the 1960s, and now, against Pakistan, A Fourth, conclusion that is drawn is that though conventional arms and diplomatic alignments are sufficient for India's current security needs, yet high technology nuclear preparedness is a must keeping in view, the nuclear China on one side and near nuclear Pakistan with an ambiguous stand on the other. However, were Pakistan to explode a bomb, the pressure would be there from the Indian bureaucracy and public opinion for another peaceful nuclear explosion (PNE) test.

The main elements concluded from the study of Pakistan's nuclear behaviour in chapter III are fewer but no

less complex than those of India. First, Pakistan claims that the major motivation behind its nuclear programme is fear of India, yet India is not a realistic target for Pakistani military capability. If Pakistan goes nuclear, India also goes nuclear. A Pakistani bomb will be the legitimate reason for a changed Indian nuclear stance, provoking an arms race. Second, Pakistan's nuclear path was neither always of a military nature nor always anti-Indian, but a civilian nuclear programme. In the latter 1960s Bhutto sold his nuclear programme to the Pakistani public on an Anti Indian appeal, but those were the days when Ayub government was falling and Pakistan wanted war. Under Zia, its nuclear programme helped Pakistan obtain modern conventional arms from the United States.

The principal factor that has prompted Pakistan to pursue the acquisition of nuclear arms is the fear of Indian hegemony. By virtue of its conventional military superiority and its nuclear capabilities, India remains a central concern. Although Pakistan has sought to modernize its own conventional forces in recent years, India's military build up, its pre-existing advantage and its steps to acquire new high visibility systems has undoubtedly increased Pakistan's anxieties. Thus, there is good reason to believe that Pakistan will continue the course it has pursued for over a decade of acquiring a nuclear deterrent capability. Indeed given the evidence of Pakistani plans to expand its enriched uranium production capacity and its

apparently continuing clandestine nuclear purchasing activities, it appears that Pakistan is firmly committed to enlarging its defacto nuclear weapon stockpiles.

At the same time because of the threat of U.S. sanctions, especially after the Presler Amendment and the fear of stimulating India to pursue its own nuclear capabilities more aggressively, Pakistan appears unlikely to alter its ambiguous nuclear status by conducting a test or declaring that it possesses nuclear arms.

The issue of proliferation in South Asia has now got mixed up other issues of concern to India and Pakistan. Pakistan relates the non proliferation issue to the Kashmir issue. New Delhi's argument has been that it was not for want of efforts on India's part that the concept of bilateralism in India- Pakistan relations has not taken off the ground. Every time India proposed or responded to a bilateral dialogue, the exercise has been nullified by Islamabad on some pretext or the other.

On the other hand, if India were to conduct another test, it would likely suffer serious diplomatic costs as well. These could include, chilling relations with the great nuclear powers, the undermining of ties with U.S. and the loss of stature in the non aligned movement which is strongly committed to disarmament.

Finally, as long as India desists from these overt steps and maintains its current nuclear posture, China is unlikely to consider India's nuclear capabilities as direct threats and New Delhi will be able to forego the costs of

developing a deterrent against nuclear pressure from this quarter.

The aforesaid factors concluded from the study of India's and Pakistan's nuclear policies make proliferation in the subcontinent, and in other regions for that matter, a far more complex issue than one of a simple development of military capability as was the case when the existing nuclear weapon states were engaged in proliferation. The complexity of nuclear decisions has increased also as a result of the changes in views regarding nuclear weapons and their effectiveness. The experience of nuclear weapon states indicates that they constantly have to bear the burden of qualitative and quantitative improvements in their nuclear forces. This experience also confirms that while pre-occupation with the maintenance, management and improvement of conventional defence strategy remains, the headaches of those related to nuclear defence are added. A persistent headache for nuclear strategists has been the task of making nuclear deterrence work. Given this realization, it is not therefore essential to find answers to the quantitative questions mentioned above but it is important to identify the complex trends, objectives, and the considerations which account for today's decision to go nuclear or not. This will help to appreciate the paramount question whether acquiring nuclear weapons is worth the commitment and risk involved.

India's attitude towards nuclear disarmament in general, and nuclear proliferation in particular changed from one of agreeing to make some concession, in the hope of moving a step further to global disarmament, to that of making no concessions as long as the nuclear arms race continued and the NWS retained international status on that account. The former approach culminated in India's strong support for a nuclear test ban treaty and its adherence to the 1963 PTBT. This decision had in effect limited India's own weapon option. The latter stance, instead resulted in India's refusal to join the 1968 NPT and in keeping a weapons option open. Both stances however, reflected choices made at the national level, in the same way as India's arms control diplomacy upto the PTBT. The Nehru era conformed with its anti weapon stance, so does that of the NPT era with India's policy on the nuclear weapons option.

The Commitment to keeping the option open is further confirmed by India's objection to the proposal for the establishment of the South Asian NWFZ. Instead, India, Since 1971, has continued to support the proposal for the Declaration of the Indian Ocean as a zone of peace, which could in effect require the withdrawal of the nuclear presence of three major nuclear powers from the region i.e. the USA, USSR, and China.

Despite its gradual hardening, a very important consequence of India's arms control and non proliferation policy is the dichotomy it has produced in the country's

weapons decisions. On the one hand, this policy established the diplomatic right to exercise a weapons option. On the other hand, it has constrained India from going nuclear. At every opportunity since the late 1940s India criticized the nuclear arms race and tried to encourage nuclear disarmament. Also in its NPT diplomacy, India insisted on the necessity to use nuclear technology for peaceful purposes. More recently, India was among the six countries participating in New Delhi's meeting of the Four Continent initiative on disarmament in January 1985 (calling for a freeze on the spread of weapons into outer space). An open decision to go nuclear would therefore be a significant reversal of India's forty years disarmament policy. And India on the whole has shown a consistency in its arms control diplomacy and practices.

Pakistan's arms control diplomacy in general and non proliferation in particular, continued to pursue a central objective almost consistently from the early 1960s; that of supporting a measure which would primarily halt proliferation of nuclear weapons in India within the general framework of non proliferation in NNWS or in the subcontinent. Interest in global nuclear arms control and disarmament thus remained secondary to that objective.

Because of this preoccupation, Pakistan refused to adhere to the NPT in spite of having no major objection to the terms of the treaty as it stood in 1968. A publicly stated, Pakistan's final decision whether to join the NPT or

not was dependent on the degree of support given to the treaty by the near nuclear weapon states and by consideration of Pakistan's geopolitical position. In other words, it pointed out the importance of India's position vis-a-vis the NPT. By not joining the NPT, Pakistan like India also confirmed its decision to keep a nuclear weapons option open.

The importance of India's position in influencing that of Pakistan was once again manifested in the latter's proposal in 1974 for the declaration of South Asia a a nuclear weapons free zone. With this proposal Pakistan once again played a double game by her confirmed readiness to give up its weapons option only if India did the same. Therefore, given Pakistan's efforts on the 1970s to strengthen its nuclear option both from technical and diplomatic viewpoint the chances of abandoning this option unilaterally are now even smaller than they were in 1968.

Yet, having established the diplomatic right to exercise its nuclear weapons option Pakistan, like India, is constrained by its own non proliferation diplomacy. Pakistan all along used that diplomacy to single out India as the only power in South Asia with weapons intentions. Moreover, Pakistan has categorically denounced the distinction India made between a PNE and a weapon explosion. Therefore, any change in the country's existing nuclear weapons option, such as a nuclear test or acknowledgement of a weapons programme, would inevitably be contrary to the non proliferation diplomacy which Pakistan has pursued since



the mid 1960s. It can thus be said that both India and Pakistan would be subject to similar diplomatic constraints if they were to change their present nuclear policy.

The present analysis suggests that there has been a nuclear stalemate in the subcontinent for some years. The balance is fixed by India having demonstrated its weapons capability through a nuclear test, and by Pakistan having made a similar claim without conducting a test. While this stalemate is short of an open weapons programme, both countries are engaged in what is called perfecting the weapons option.

This stalemate has endured inspite of many fluctuations in the political strategic environment of the subcontinent. This include the change of leadership in India and Pakistan, the internal uncertainties caused by separatist tendencies, and unsatisfactory socio-economic conditions.

Certain factors are identified as having contributed to the resilience of the nuclear stalemate in the subcontinent and tended to mitigate against open commitment to nuclear weapons.

(1) Though hostility and distrust between India and Pakistan remain, both countries have gone a long way in the process of adjustment. This process has been helped by the subcontinental wars. The reality is that India is established as the pre-eminent power in the subcontinent. Yet its power

is challenged by that of its regional adversaries helped by extra regional powers. Pakistan on the other hand, has proved incapable of challenging India militarily, yet it is capable of using political and diplomatic means to challenge India's hegemony. Nuclear weapons seem unlikely to substantially change these realities.

(2) The two countries' arms control and non proliferation diplomacy has created a dichotomy in their nuclear decisions. While by refusing to join the NPT both countries have established the diplomatic right to exercise a weapons option, they are both restrained by their continued objection to the global nuclear arms race. For Pakistan nuclear arms control diplomacy has been directed at preventing India from proliferating and at exposing that country as the only potential source of nuclear threat to the subcontinent. Therefore, Pakistan faces diplomatic constraints in changing its nuclear policy. A change of policy by Pakistan is moreover likely to trigger a nuclear race in the subcontinent and would liberate India from many of the political, diplomatic, and moral arguments against going nuclear.

(3) Although there has been pride in nuclear capability, there is no evidence to indicate that the public in either country is willing to support proliferation if or when economic commitments and risks prove too high. Both countries national security continue to rest in the last

analysis, on their ability to improve their socio-economic and political conditions. This again cannot be traded off by acquisition of a nuclear weapon force.

(4) The continued absence of a nuclear threat makes a commitment to a weapons programme hard to justify in strategic or security terms. India and Pakistan continue to dedicate a large share of their resources to conventional defence. Further investment in nuclear defence might incur greater uncertainty than stability.

Having identified these factors against proliferation, our argument suggests the likelihood of continued nuclear stalemate in the near future, at least before India's acquisition of a long range delivery system. This process could be strengthened by a continued consensus against nuclear proliferation between the super powers, their efforts to slow down the global arms race and their willingness to hold back from deeper involvement in South Asian region. Equally important is India's and Pakistan's ability to maintain their internal stability, and the two countries willingness to attend the socio-economic matters rather than to resort to adventurist and militaristic external policies.

The NPT as the sole mechanism for managing proliferation comes up for a decision on the extension in March 1995 Article X-2 of the Nuclear Non Proliferation treaty (NPT) states, "Twenty five years after the entry into force of the treaty, a conference shall be convened to

decide whether the treaty shall continue in force indefinitely or shall be extended for an additional fixed period or periods. This decision will be taken by a majority of parties to the treaty." At this stage, there can be no question of India supporting the NPT.

With the NPT deadline approaching, the whole question of global proliferation needs to be readdressed. Forty years of the 'atoms for peace' has given a great many countries the capability to think of going nuclear. Among these countries are many who have joined the NPT, but there is nothing which prevents them from going nuclear after 1995. Therefore, if the international community is interested to reach a new consensus on non proliferation, It has to address the whole concept of global disarmament in order to enlist the support of India and Pakistan for any future arrangement.

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