

**NUCLEAR WEAPONS :
POLICY OPTIONS FOR INDIA
1974 - 89**

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DECLARATION

This dissertation entitled Nuclear Weapons - Policy Options for India, 1974-89 submitted by Ms. Vidisha Singhdeo in partial fulfillment of the requirement for the degree of Master of Philosophy, has not been previously submitted for any other degree of this or any university. We recommend that this dissertation should be placed before the examiners for their consideration for the award of M.Phil. degree.

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PREFACE

World War Second has witnessed a number of changes in the international politics, but the dawn of the nuclear era is the most important one. This era gave birth to the two superpowers, polarization of the world into military groups and a sense of insecurity to the whole mankind. The idea of development of mankind has been snatched away by an ever haunting idea of 'Nuclear Winter'.

The nuclearization process has not only changed the international diplomacy in its operational but also in theoretical sense. As we see that the concept of security has been changing and its meaning to different countries also differ. Since the process of nuclearization and skyrocketing developments in science and technology has shrunk the world into a "Global-Village"; the concept of security can not be viewed in national terms as was done before the nuclear era. Rather a nation's security policy is formulated after giving a due consideration to national, regional and extra-regional factors. There is always a linkage between these.

In the present study an endeavour has been made to present a wholistic view of the concept of security in the first Chapter. Till today Western concept of security has been dominatingly and being widely used in the international arena due to the fact that these imperial powers

have tried to justify their neo-imperialistic mechinations at the behest of these distorted concepts. The Western interpretation of the concept is inapplicable to the politically instable and economically fragile Third World States.(TWS). An attempt has been made to explore regional, extra-regional and economic factors threatening the security of TWS with special reference to India.

The nuclearization has changed the concept of conventional deterrence. The conventional style of frontier wars with guns and tanks has been superseded by the star war with the laser beams. Consequently, a change in the concept has been marked. This type of deterrence is either a total one or otherwise. The nuclear war will not start or it will bring the flora and fauna down to the unproductive dust. This paradoxical decline and persistence of Nuclear Deterrence in the 1990s has been explained in detail in the first chapter (b). The concept has been explored historically as well as conceptually.

India's nuclear policy witnesses the impact of regional and extra-regional considerations. Since the beginning, India had has been a vehement supporter of peaceful uses of Nuclear Energy. If the misuse of nuclear energy can destroy the whole world within few seconds, the use of this energy can convert the sad face of this earth into a smiling one. Nehru had never expected a

breach of peace from any neighbour which was broken away with the Chinese attack on India on October 20, 1962. It was because of this fact, that Nehru had guaranteed to the whole world that India would never misuse this energy by making bombs. On the same line India signed Partial Test Ban Treaty in 1963 but denied to sign Non Proliferation Treaty in 1968. India proposed a total disarmament against the regional one. All these factors have been explained in detail in the second chapter.

Since the death of Nehru, India preferred to keep its nuclear option open, with a slight change during Janata period which was also altered to the earlier line. The same policy was followed by Rajiv administration and the same is being followed by the present government. This change and continuity in the policy, thereby resulting into a strategy of ambivalence is due to various factors. These have been elaborated in the Third chapter.

What constitutes a nuclear capability? What causes a country to go nuclear? The triggers pressurizing the TWS to go nuclear, the resultant proliferation of weapons and the regional arms competition - chains has been discussed in Chapter four. Still the issue whether India should go nuclear demands a debate. There are two groups - one supporting India to keep its nuclear option

open - the other pressurizing India to go for nuclear arsenals and still there is a group on Gandhian line who prefers India to be a torchbearer of the disarmament process. Their arguments have been explained in the last Chapter.

All these arguments have been synthesized in the form of conclusion. Why the present study supports to keep the nuclear option open thereby adopting the strategy of ambivalence has been substantiated with various arguments.

In the end I hereby acknowledge my earnest gratitude to Dr. Rakesh Gupta under whose inspiring guidance, I am in a position to finish this work. I am also thankful to the Chairman, Professor Balveer Arora for his kind help given from time to time.

Vidisha Singhdeo.

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CHAPTER - 1

FRAMEWORK OF ANALYSIS

The security question first arose in a historical stage of social development when the different classes, strata and their product, the state as the oppressive organization of the ruling classes with its internal and external functions, was born. Even before the emergence of the state, people had security problems - exposure to the forces of nature, fear etc. - but they had never assumed a political character at that time. A simple definition of security is the relative freedom from harmful threats. In studies of international relations, the term is usually employed to denote the physical safety of a nation, its territorial inviolability, and its national sovereignty.¹

Before the atomic age, that is upto the simultaneous existence of the world capitalist and socialist systems, the essence of security for all social economic formation had been the defence of the frontiers of the given country against foreign dangers, attacks and conquests. It was under capitalism and imperialism that security as an internationally acting factor first appeared in history. The breaking out of the First and Second world war was also the consequence of this development. In that stage of historical development,

1. Mroz, Edwin John, Beyond Security - Private perceptions Among Arab and Israels. (Pergamon Press, New York, 1980), pp. 80-82.

the traditional security questions such as the frontier, the territorial and the problems of conquering or keeping the sphere of influence, predominated. But, the issues going far beyond the territorial problems, such as strengthening and weakening of the economy, the expansion or loss of world political and military influence, etc. as the social and economic determinants of security clearly manifested themselves. The essence of military security was also made to serve capitalist interests, although not a single capitalist state declared it openly - not even the fascist states - they always wrapped it up in the misleading slogan of national interest. Hence, security - in the broadest sense - was already there at the time of the emergence of imperialism.

National security is a Western, and particularly an American, post-1945 concept. It has therefore developed in response to the needs and conditions of a distinct group of states. The Western usage of the term national security was dominated by their priority to maintain the natural status-quo and the military paralysing effect of mutual nuclear deterrence on their collective rivalry with the Soviet Union. It reflects their response to the fundamental ideological challenge from the Soviet Union.

The western concept is termed as "mutual security" which the Soviets claim to be discriminatory. They have given a broader connotation of the concept terming it as "Equal Security".

The two concepts are usually handled as synonyms in the literature, although this is justified only in part. The West speaks almost exclusively of "mutual security". Its essence is that all people, nations and countries have the right to security. So far all is correct. In the East-West relationship, however it is always the U.S. administration in power, or NATO, that determines the measure of security that the socialist countries are entitled to. The Socialist community could not accept such mutuality. This may be then the reason, or the pretext, for a new confrontation policy. The military security concept of the Soviet Union sets out from the principle of equal security. The Soviet concept of security is based on the exclusion of the possibility of one side protecting its interests to the detriment of the other side. If one considers the relations between U.S.A. and USSR, then the security of both can be mutual only after taking into account the interest of each side, defining the areas of common interest and measures to bring them closer.²

2. Primakov, E. "Philosophy of Security" in Subrahman-
yam, K. and Singh, Jasjit ed. Security without
Nuclear Weapons: Indo-Soviet Dialogue (Lancer
International, New Delhi, 1986), pp. 74-80.

The Soviet concept of security is not limited to relations between USA and USSR, however important they may be. Rather it believes in forming a universal international system of peace.³

The term national security has a meaning, and that meaning is related to threats to core national values. The nature of threats varies from country to country, across issue areas, and over time. The western concept has focussed chiefly on the military dimension, especially the threat perceptions of contending elites, doctrinal responses, security resources and capabilities to meet external threats to the state. The western approach underestimate the salience and impact of domestic fragility, economic and technological underdevelopment, ethnic, religious and social cleavages in the ever expanding populations and the severe eco-political pressures affecting the Third world. Security in the context of the Third World states does not simply refer to the military dimension, as is often assumed in western discussions of the concept, but to the whole range of dimensions of a state's existence which are already taken care of in the more developed states, especially those of the west.⁴

3. Ibid., p.83.

4. Thomas, Caroline, In search of Security - The Third World in International Relations, (Rienner Pub., Colorado, 1987), pp. 2-5.

There are some fundamental difficulties in applying the West-Centred and originated concept of national security.

The security of western and Third world states differ on two grounds - their degree of political cohesion and the nature of their security environments.⁵ Many Third world states are fragile political entities, and this fact introduces serious problems in identifying the referent object for a concept like national security. One danger in using national security for politically weak states is that it easily legitimates the use of force in domestic politics. Most Third world states also face a much more turbulent and unstable security environment than do most western states. This endemic instability is of course linked to the political weakness of many Third world states, creating a vicious circle of insecurity. Buzan⁶ argues that these major differences may invalidate the use of the concept of national security for Third world conditions, or at the very least constitute an argument for considerable circumspection in applying the concept.

Bobrow and Chan⁷ make some salient distinctions between the Third world, on the one hand, and the First

5. Buzan, & Barry People, States and Fear - The National Security Problem in International Relations, (Wheatshaf Book Ltd.,

Great Britain, 1983) pp 5-13

6. Ibid.

7. Bobrow, Davis B and Chan, Steve, Simple labels and complex realities: National Security for the Third World in Azar and Moon, "National Security in the Third World: The Management of Internal and External Threats, (Great Reelain, Cambridge University Press, 1988), p.65.

and Second worlds on the other in terms of respective national security problems and coping capabilities. Departing from the previous undifferentiated view of the Third world, they further disaggregate the Third world, into four sub categories - Achievers, Goliats, Davids and Weak - by using such indicator's as size, economic development, and military capability. Within this differentiation, the variety of national security problems, options, accomplishments, capabilities and management proclivities of each of these sub-categories is raised and discussed.

Azar and Moon⁸ delineate three dimensions of national security policies: security environment, hardware and software. While security environment is an essential indicator of external threat and alliance pattern, the hardware side of security management involves physical capabilities, strategic doctrines, force structure and weapon choice. By contrast, the software side refers to political legitimacy, integration, and overall policy capacity. Moreover, the software side of security management is the crucial intervening variable linking security environment to hardware in Third world countries.

8. Azar, Edward E. and Moon, Chung In.ed. National Security in The Third World: The Management of Internal and External Threats, (Great Britain; Cambridge University Press, 1988), pp. 38-40.

Han-Sik Park and Kyung A. Park⁹ elaborate the importance of non-tangible domestic political factors in the non-western world. Through a comparative study of China and North Korea, they elucidate the crucial role of ideology in influencing overall security management and performance. Although China and North Korea may represent deviant cases by Third world standards, their practice and performance demonstrate clearly that ideology can be an integral part of national security.

Domestic insecurity on various fronts is again a grave problem for Third World countries which makes the task for Third world states qualitatively different from other developed countries. The factors are:

- Third world states are post-colonial states. Even the nature of the modern nation state is an imported value for much of the Third world. Hence nation-building is a crucial concern for them. As such, these youthful states must undertake the process of nation-building.¹⁰ Nation-building problems exist

9. PARK, HAN-SIK and PARK, KYUNGA, Ideology and Security in AZAR, EDUARDE and MOON, CHUNG ed., n. 8, pp. 14-65.

10. Smith, A. D., States and Nations in The Third World. (Harvester Press, Brighton, 1983), pp. 77, 102.

in the Middle East, with Lebanon being a tragic contemporary example of coincidence of nation and state.¹¹ Sri Lanka also has nation-building problems which arise out of ethnicity and which pose problems for the South Asia region.¹² Central and South America and the Caribbean do not suffer from territorial disputes in quite the same way as the African continent, but even there, nation-building is facing serious obstacles.¹³

- Third World states are artificial, constructs, and their government must strive to hold them together once the first wave of anti-colonial nationalism has passed and ethnic, religious and linguistic differences come to the fore. Asia is marked by diversity. India has seventeen official languages plus hundreds of others and it is faced with strong centrifugal tendencies.¹⁴

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11. Odeh, B.S., Lebanon: Dynamics of Conflict, (Zed Press, London, 1985), pp. 45-60.
 12. Goldmann, R. and Wilson, A.J. ed. From Independence to Statehood, (Pinter Pub. London, 1984), pp. 103-110.
 13. See Manhy, M., Jamaica: Struggle in the periphery, (Writers and Readers Pub., London, 1982); also, Searle, C. Grenada: The struggle Against Destabilization, (Writers and Readers Pub., London, 1983) and Calvert, P.A.R. "Boundary Dispute in Latin America", Conflict Study, no. 146, Institute of Conflict Studies, London, 1983.
 14. Akbar, M.J. India, the Siege within: Challenges to a Nation's Unity (Penguin Pub., Harmondsworth, 1985).

- Weak and devisive social, economic and political structures.
- Third world states do not yet have completely structured economies and infrastructures that can produce the food, goods and services that they need for trade and consumption. They are mostly dependent on the export of one primary product. Thomas has raised the thorny issue of food and health security in an era when population increases are phenomenal.¹⁵
- Slow technological progress.

The problem of internal insecurity makes the problem of external insecurity all the more acute, and vice versa. These different dimensions of insecurity feed off one another. All the three levels of security - individual, national and international system are interconnected and national security problem cannot be understood without reference to factors at all the three levels of analysis.

15. Thomas, n. 4, pp. 93-116.

THREAT TO SECURITY WITH SPECIAL REFERENCE TO INDIA:
Regional, Extra Regional and Economic Factors.

Threats are a set of conditions faced by any particular state. Each state exists, in a sense, at the hub of a whole universe of threats. It does not constitute a clear set of calculable and comparable risks and has diverse forms. It is in a state of constant evolution. In many ways a threat is an inherent geopolitical environmental condition for which the price and penalty will have to be paid by the target state if it fails to build its own effective warding off mechanism.¹⁶ Environmental conditions are inherently dynamic and not static. This implies that with the change in environments, the threat may recede or acquire dangerous proportions depending upon the direction of change.¹⁷ National security policymaking is necessarily a highly imperfect art since the threats are so ambiguous, and because knowledge of them is limited. They can be assessed in relation to a particular state as a target. Security policy requires not only to understand the threat themselves but also the vulnerabilities of the state as an object of security.

16. Kathpalia, P.N. "Indo-Pak Relations: The Concept of National Security", Indian Defence Review, (New Delhi) Vol.VIII, No. , 19 , pp. 113-117.

17. Ibid, pp. 116.

The question of "threat" to security is examined under three heads: First, it must be noted that the phenomenon of threat is related in time to immediate and near term problem; while the medium and long-term problems can best be described as challenges. Thus in many cases, today's threat was only a challenge some time in the past; and today's challenges may or may not, materialise as a threat at a future date. Responses play an important part in the transition of challenges to threat besides, of course meeting them adequately. Military preparedness and capabilities have a significant influence on challenges, threats and responses. Thus, the Sino-Indian border issue which emerged as a real 'threat' in September 1962 was only a challenge in September 1959, and a problem issue a couple of years earlier.

The Second issue is that unlike earlier eras, there is progressively lesser incidence of war with the objective of occupation of a country as a whole. However occupation of territory for politico-military objectives has continued.

Thirdly, external threat to security has been conceptually related to war.

However, in modern times, the interaction and inter-relationship of external threats, create a different type of challenge to national security, the examples of which are perhaps best seen in secessionism and insurgencies. The external threats arising from employment of military forces, resulting in armed conflict or otherwise, but which may not result in actual war, is a relatively new dimension of challenge to security which is also more complex to handle than war itself.

We will examine the challenges and threats to India's security need in the context of these fundamental issues.

One may rule out an outright invasion into the populated areas of India, the kind of operations conducted during the second world war. But nibbling at sparsely populated areas (of the types that happened in Aksai Chin during 1955-62, & in Siachen recently) cannot be ruled out. Nor should one rule out occupation of unpopulated islands in the far-flung island territories. The threat of military intervention by powers is a major source of insecurity to the littoral states of Indian Ocean. Small island in the area serve this purpose as they provide potential sites for military facilities, communication stations, transit posts or bases for logistic support. In addition there are

certain countries, described as "Military Access or Frontline states", which serve the foreign and military policies of the United States. Saudi Arabia and Pakistan are essential elements of Western strategy in the Persian Gulf region. They are major recipients under the American Assistance Programme to improve their defence capabilities and economic performance.¹⁸

Apart from the above category of occupation of territory the following kinds of security threats can arise:

- Infiltration of alien population into our territories. We already have this problem in the northeast, originating from Bangladesh and Nepal. This can in due course extend to areas along the Burmese border.
- Our territories being made use of as sanctuaries by insurgents and terrorists of another country or in the converse, insurgents and terrorists of our country making use of the territory of a neighbouring country as sanctuaries. This situation already exists in respect of Sikh extremists operating across the Indo-Pak border, the TNV extremists and Shanti Bahini insurgents operating across the Tamil militants of Sri Lanka, who use T.N. as a sanctuary.

18. William Schneider, Jr., "Fy., 1986 Security Assistance Requests", Department of State Bulletin (Washington) Vol. 85, no. 2090, June 1985, p. 71.

- There can be significant material and manpower support to insurgents and terrorists by a neighbouring country where across the border action becomes necessary. We faced such a situation in September 1965 when it was felt necessary to counter the Pakistani 'Operation Gibraltar' and 'Operation Grand Slam' by counter-action across the international border.
- Irredentist claims being revived. This can arise in Kashmir across the line of control and the border between Andhra Pradesh and Tibet. That may escalate into limited war.
- India being subjected to coercive diplomacy in any of these limited actions escalating and that involving an implied nuclear threat.

The sub-continent is surrounded by three major nuclear weapon arsenals and within the sub-continent, with all reasonably assessable evidence. Pakistan is today an incipient nuclear weapon power, yet a nuclear weapon power all the same. No consideration of Indian security problem is possible without taking this vital aspect into account.

Our major security concerns, China and Pakistan, are both nuclear weapon powers today. US role in South

Asia could heighten the overall risk of nuclear war, adding an unpredictable new dimension to this danger. No less than in the case of the continuing build up of nuclear arsenals of the superpowers, no thoughtful observer American or otherwise, can contemplate such a development without concern, says a recently concluded report by a task force of specialists of the American Carnegie Endowment of International Peace.¹⁹ Victor has cautioned against Sino-US-Pak confluence as a danger to the Indian security.¹⁹⁽¹⁾ Ashok Kapur rightly asserts, by overcasting the regional dimension the effect of international environment on 'regional' or 'national nuclear proliferation' is neglected.²⁰ [These aspects of security have been discussed in detail in Chapter IV (c).]

India's credibility in the subcontinent will decline unless we are able to project an image that our military nuclear capability is a few steps ahead of Pakistan and we shall be steadily building up for capability.

19. "Nuclear weapons and South Asia Security", Report of the Carnegie task force on Nuclear Proliferation and South Asia Security Carnegie Endowment (USA, 1988), p.4.

19(1) Victor, Cecil, The Security Dilema, (Patriot Pub., New Delhi, 1990), pp. 257-58.

20. Ashok Kapur, "Nuclearising Pakistan: Some hypothesis", Asian Survey, Vol. XX, n.5, May 1980, p.49.

With nuclear arsenals on both sides of the border there should be stability of deterrence. The Pakistani view, that with deterrence established the Kashmir issue can be reopened, does not make sense, on the other hand, such deterrence will stabilise the line of control in Kashmir into a border. The posture of minimum deterrence might also result in freezing the Sino-Indian line of control.

So far as India's security-umbrella under Soviet Union is concerned, there are no firm commitments by nations in the real politik in regard to guarantees to the security of other nations. India especially being a large nation, can not think of relying on any other nation for its security without losing its credibility both internally and externally; as we lost our credibility in the period following the 1962 debacle. In today's world, when coercive diplomacy rather than outright invasion is a more likely threat to our security, the image of power should be proportionate to our size, population and resources. Our image of the lack of will of power, reliance on external factors to safeguard our security and lack of confidence in ourselves, will tempt others to encroach upon the freedom and security of our nation.

Professor Ali Mazrui has justified the security of the Third world through proliferation. He advocated the nuclearization of non-aligned countries. This would mean not only using nuclear power for peaceful purposes but also using that power to reduce the danger of East-West convulsion.²¹ Mazrui has not used such proliferation in order to affect the over-arching East-West military balance in favour of one side or the other; far from it he has urged to improve the political position of Third world states in the international arena. The actions of the Third world states are not always to be measured in terms of the East-West balance; they have indigenous desires, aims and requirements which cannot be interpreted within the boundaries of a simple East-West framework. Moreover, distrust and suspicion are created not only by horizontal proliferation but by vertical proliferation also and it is because of this fact that most non-nuclear states are becoming distrustful of the superpower's commitment to NPT as a whole.

There are some writers from the developed world, however, who advocate the spread of nuclear weapons,

21. Mazrui, Ali, "In search of Pax Africana", The Listener 13 Dec. 1979, p. 77.

but these are very few in number. One among them Kenneth Waltz, concludes that 'the gradual spread of nuclear weapons is better than no spread and better than rapid spread'.²²

All this goes to underline the rich diversity of states which form the Third world grouping. It is emphasised here that while in general terms Third world states have been able to do little to increase their security in a significant way but on particular issue. the relative ability of individual Third world state to improve their security has varied from time and space.

Barry Buzan²³ perceives the threat of national security and terms it as security complex. According to him a security complex is a group of states whose primary security concerns link together sufficiently closely that their national securities can not restrictly be considered apart from one another. In short, he perceives a direct link between the domestic and the international problems. Thus, he establishes a linkage, like Rosenau between the two. Moreover Buzan perceives these security complexes as durable but they are not permanent nor internally rigid. These complexes have overlapping boundaries. These complexes are based on various factors, geographical, political, strategic, historical, economic or cultural.

22. Waltz, K. "More may be Better", Adelphi paper no. 171, IISS, London, 1981.

23. Buzan, Barry, People State and Fear: The National Security Problem in International Relations, (Wheatsheaf Books Ltd., Great Britain, 1983) pp.46-108.

Different complexes are effected by different factors. Like the South Asian security complex is aggravated by their local issues (countries of South Asia). The second factor to effect this complex is the external patterns which cut through this South Asian complex. These includes the Sino-Soviet disputes and the rivalry between the US and Soviet Union. In brief one set pattern of complex is always effected by the larger complexes. Taking the special case of India and Pakistan let us take the various factors - inter-state intra state, inter complex and intra complex which always effects each other. First, is the growth of the nuclear rivalry between India and Pakistan. Second, Pakistan's assiduous playing of its Islamic 'cards' in its continuing support to offset the greater relative influence/weight of India.

These complexes help the policymakers to define their national security in a clear way. Almost every country will be able to relate its security perspectives to one or the more complexes. What is more important regarding these complexes is that they offer an approach to security which requires the attention to both the macro level of the great power impact on the system, and the micro level of local state relations. Buzan finds similarity between these complexes and relates it to the

traditional idea of Balance of Power. The author finds a change in these security complexes as compared to the 18th century complexes which were dominated by the Anglo-American analytical tradition in International Relations. The changes are brought about by the decolonisation process which have shifted the boundaries of the complexes. The second is the spread of the modern weapons. Kolodziej and Harkavy also find the factor of decolonization in International Security System to be a predominant one.

Various analysts and strategists have evaluated these complexes either as a static or a dynamic mode of analysis. Nevertheless these security complexes provide a useful referent on which policy can be focussed or which can be used to evaluate policy proposals. Security complexes can be treated as objects for policy in the sense that problem can only be resolved within the context of the relevant complex as a whole.

DEFENCE AND DEVELOPMENT: A PERSPECTIVE

The pressing need for national security can not be viewed in isolation, as it has a major impact on

a country's economy and overall development programme. There has been a growing concern for the last two decades about the impact of military expenditure on the development prospects of the developing countries. The defence-development debate is, of course, not unique to the Indian context but has periodically been raised in both developed and developing countries. The issue requires a considerable importance.

Eminent scholars like Mary Kaldor, Herbert Wulf, Dan Smith etc. have conducted detailed research on the relationship between defence expenditure of developing countries and their growth prospects. Three viewpoints have generally been highlighted on the defence-development issues. Firstly it is generally held that defence and development are competitive. Second belief generally acknowledges the first view but defence spending is considered to be an essential pre-requisite because without it development efforts may turn to be futile. Thirdly, defence and Development are considered complementary rather than competitive. Development not only provided a justification for increased defence expenditure, it is perhaps even beneficial to the development effort.

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Our whole debate revolves round the above given three points. A flood of literature on the topic originating from the developed countries has used the "gun versus butter" analogy in the economic context of scarcity of resources and opportunity cost. In other words the problem of defence and/or development has been expressed as 'the amount of butter which must be foregone is the opportunity cost of the additional guns'.²⁴

Arms purchase, it is often argued, utilizes scarce foreign exchange and domestic resources that could be used for more constructive developmental purposes. Domestic resources would include, apart from foreign exchange, the industrial capacity, skilled technical and managerial manpower, raw material and intermediate goods, educational and training institutions and so on. The purchase of armaments, their maintenance and repair, and licensed production of some items would drain the above mentioned resources and skills away from the needs of general population. As a weapon system has its own rigid requirements for operation, maintenance, repair, and production, it would have dictatorial impact on the industrial and technical capacities.²⁷ The lopsided

24. ~~_____~~ Huisken Ronald "Armament and Development", in Helena Tuomi and Raimo Vayrynen., Militarisation and Arms production, (London, 1983), p.20.

use of resources, manpower and technology would take them further away from the civilian use and thus have a negative impact on the economies of the developing countries.

The first belief existed within the government of India, particularly in the years before the Sino-Indian war of 1962, that defence and development constituted competing claims to scarce economic resources. The perspective of the fifties, i.e., the paramount claims of development over everything else including defence, was translated into a foreign policy that emphasized nonalignment, peaceful co-existence and the desirability of avoiding military entanglements through alliances. Even after the military pact between the United States and Pakistan in 1954, and the consequent reorganization and arming of Pakistan's armed forces, defence expenditures were still maintained at less than 2 per cent of the GNP, except briefly during the years 1957-58 and 1958-59, when it rose to 2.4 per cent and 2.2 per cent respectively.²⁵

The second belief, gained ascendancy among government decision-makers after the China war. The

25. Subrahmanyam, K., Defence and Development (Minerva Ass. Calcutta, 1973), pp. 14-28.

changed policy and outlook after the 1962 Sino-Indian war was more political than economic. In the first place, there was a more conscious evaluation of the consequences of increased defence expenditures on economic development. But the political priorities were now reversed. Higher defence budgets were considered unavoidable, in view of the real threat to the Indian nation and the failure of New Delhi's Beijing policy. In a sense it was even considered necessary to the development programme as efforts in this direction would prove futile if the country's territorial integrity was undermined. The claims of defence were therefore temporarily given more importance than that of development except in those critical areas where development plans were considered vital to the defence effort.

The new outlook, however, also emphasized the peaceful intent of defence spending and military programmes. A nation spends on weapons and armed personnel only to defend against external aggression. The amount must be appropriate to the threat perceived because such expenditures took resources away from other pressing economic programmes. This attitude was expressed by Nehru during the Sino-Indian war,

and later perhaps best restated by Finance Minister Morarji Desai when he declared that national sacrifice can never be enough when it came to defending the nation's territorial integrity.²⁶ A similar attitude was taken by Lal Bahadur Shastri who was Prime Minister during the 1965 Indo-Pakistan war.

The Third view emphasized the spin-off economic benefits of defence spending. Professor Emile Benoit of Columbia University in his pioneering study in this area in late 1960s, has strongly challenged the negative growth effects of military burden. He concluded that there was a positive rather than inverse co-relation between defence spending and economic growth in India, a finding that also seemed true of most developing nations. In 1963 and 1964, the immediate years after the Sino-Indian war, according to Benoit when Indian defence expenditure reached to 4.5 per cent and 3.8 per cent of the GNP, the Indian Gross Domestic Product increased at an annual rate of 6.3 per cent per annum.²⁷ This compared to a 4.5 percent average economic growth

26. According to Desai, 'defence is our first charge and whatever our conditions, we should spend all for our defence'. The Hindu, 15 June 1967. For similar pronouncements by Shastri, and Planning Minister Ashok Mehta, see Indian Express, 11 and 19 October 1965, and The Statesman, 15 May 1966.

27. Benoit, Emile, Defense and Eco. Growth in Developing Countries, (Lexington, Mass: Lexington Books, 1973), pp. 162-4.

rate in the period between 1950 and 1961 when defence received annual allotments of about 2 per cent of the GNP. Moreover, this happened despite the fact that agricultural output rose at only 2.7 per cent per annum in 1963 and 1964, thus eliminating the possibility that the spurt economic growth may have been due to especially favourable monsoons. Additionally, Benoit's studies indicated that the sudden increase in defence expenditures after 1962 did not take place at the expense of investment. The average investment ratio (i.e. the investment relative to the GNP) was about 16.5 per cent during the three years from 1962 to 1964. This compared to an average of only 12.3 per cent for the period 1951-64. Benoit therefore concluded that 'while this historical experience could be coincidental - and is certainly too brief to provide any hard proof - it does tend to support the possibility that rising defence expenditures may have been, on balance, favourable to growth in India.' Similar findings were evident in almost all the 44 developing countries studied by Benoit, and the basic co-relation seemed strong enough 'so that there was less one chance in a thousand that it could have occurred by accident'.

K. Subrahmanyam said that an empirical investigation into the defence expenditures of several states during the last twenty years would reveal that higher military spending was invariably accompanied by high rates of economic growth. This included both communist and non-communist countries in Europe and Asia. In a letter to the Indian Express Subrahmanyam stated that to derive a negative correlation between a low defence expenditure and high economic growth rates by taking Japan alone is not statistically meaningful. If Japan is to be cited as a single example of low defence expenditure and high economic growth one could cite more than thirty other industrialized countries which have had a high defence expenditure and high economic growth rate.²⁸

Other positive results listed by Benoit were those of modernisation, nation-building and integration, apart from educational and vocational training received by military personnel which enables them to make a contribution to the civilian economic, once they are demobilised.

The other lobby has challenged and criticised this view. Nicole Ball of Sweden contended that Benoit's "methodology was a poor way of attempting to

²⁸ Indian Express, 19 May 1973.

assess the co-relation between defence burden and economic growth, which is simply complex and varied for a macro-statistical analysis.²⁹ The biggest limitation of such an analysis, in which several cases are studied to derive a conclusion based pattern, is that it treats all the cases almost alike due to some fixed criteria.

The other limitation is that it is difficult to identify relevant variables in a dynamic and multivariate society, and establish their cause and effect relationship. There may be unidentified factors linking the variables in as yet not understood relationship.³⁰

Benoit was perhaps himself aware of his limitation, but justified his methodology on the ground that comparable data on qualitative and structural change were not available. In a later study he questioned the findings of his own data, but at the same time argued for a positive association between the two factors, defence burden and economic growth.³¹

The issue of defence and development assumes greater importance for a developing country like India which faces

29. Ball, Nicole, "Defence and Development: A critique of Benoit's study", in Tuomi and Vayry. n. 27, p. 53.

30. Neuman, Stephenie, "Security, Military Expenditure and Socio-Economic Development: Reflections on Iran", Orbis (Philadelphia), Vol.22, no.3, Fall 1978, pp. 579-84.

31. Benoit, Smile, "Growth and Defence in Developing Countries", Economic Dev. and Cultural change (Chicago), Vol. 26, no. 2, January 1978, pp.271-80.

problems regarding paucity of resources and the colonial legacy of a disturbed region. We have encountered the problems of economic exploitation and the limitations of sovereignty for a long time. Thus the task before the country is to consolidate its independence, as well as to develop its resources in order to become a self-reliant economy and society. Most developing countries have adjusted to an international system which they did not create, and this has coloured their understanding of security strategy. The major concepts, theories and policy prescriptions have been handed down by the western countries over the last four decades either through military communication channels or in terms of scholarly interactions.³² But in spite of widespread western security management techniques,~~the~~ Third world countries have become more insecure and conflict-laden than ever before. Security should, thus, be viewed in a broader framework.

The importance of defending the nation's territorial integrity, population and resources is the highest one. However, socio-cultural and economic aspects, problems of development and modernisation,

32. Azar, Edward and Moon, Chung, In. Third World National Security, Towards New conceptual framwerk", International Interactions (London), Vol. 11, no.2, 1984, pp. 103-4.

national integration and the issue of interdependence and self reliance are also worth considerations. An understanding of security in such a broader perspective will help to perceive the impact of military threats to economic and society and the ability to gear the nations' resources so that defence does not seem to be too much of a burden in war time. To disarm and to seek the umbrella guarantee is infeasible; to disarm and set up the pace of change is a contradictory policy.³³ With nuclear arsenals on both sides of the border there should be stability of deterrence.

33. Kennedy Gavin ., The military in The Third World, (The Garden city Press Ltd., England, 1974), pp. 330-45.

B. DECLINE AND DURABILITY OF NUCLEAR DETERRENCE

BACKGROUND:

The word "deterrence" comes from the Latin word 'deterere', which means - "to turn aside or discourage through fear" - hence to prevent some nation, group, or individual from doing something as much through sheer terror as through rational, "cost - effective" analysis of the consequences. The concept in strategy dates back to the warring city - states of ancient Greece; and the term itself appears in the 1820 edition of the Oxford English Dictionary as meaning 'to frighten from.'¹

Bernard Brodie, however, is responsible for popularizing 'deterrence' as it applied particularly to nuclear weapons. The theory of nuclear deterrence is a uniquely American construct, shaped by certain historical, political, institutional and other influences and circumstances of the post world war II period. Postwar American strategy towards the Soviets has been characterized by a persistent theme : deterrence.

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1. Quester, George. Deterrence before Hiroshima: The Airpower Background of Modern Strategies (Wiley and Sons Pub., New York, 1966), pp. 62-80.

It evolved in the context of US superiority (albeit in the knowledge that superiority was likely to be transitory), and followed the initial procurement of nuclear weapons. After the war the economic and military physique of American along with the possession of the Atom Bomb allowed it a distinct personality with a self image or superiority-moral, material and military.

The Truman doctrine was adopted with the purpose of ending the collaborative relationship between the US and USSR in order to establish the hegemony of the United States with the help of the Bomb. PMS Blackett rightly said that the bombing of Japan "was not so much the last military act of II world war, as the first act of cold diplomatic war with Russia". In other words, the main target was not Japan but the Soviet Union.

After Hiroshima, Truman sought a confrontation with USSR on all the major issues of the day. He decided to exclude USSR totally from Japan² and refused to allow the Red Army to accept even a token surrender at Hokkaido.³

2. Truman, Harry S., Years of Decision (Doubleday Inc., New York, 1955), p.70.

3. Ibid., p. 440 - 3.

The role played by nuclear weapons in formulating the policy of 'rolling - back' (forcing the Russians back from the Balkans) was crucial. Clearly, what Churchill envisaged was that an ultimatum for Soviet evacuation of Balkans be presented, backed by the threat of nuclear weapons in case of a Soviet refusal. This tendency to treat the atomic bomb as an absolute weapon was a characteristic of most of the politicians and strategists of Anglo-American world at that time. Brodie believed that a major power like the USSR would be so devastated by an attack of atomic weapon, launched by USA, that a small invasion force would be all that is required for a subsequent occupation.⁴ As P.M.S. Blackett pointed out, "those fallacious doctrines were largely the result of Western strategic heritage".⁵

Brodie, who has popularised the concept of nuclear Deterrence very interestingly does not use the expression in 1946 as his article shows.⁶ During the absolute monopoly of the A-bomb the U.S. contemplated its use even after the Hiroshima - Nagasaki mushroom. It is only after the Soviet breakthrough in the thermonuclear

4. Brodie, Bernard. The Absolute Weapon: (Harcourt and Brace, 1946), p. 94.

5. Blackett, P.M.S., Atomic Weapons and East-West Relations, (Cambridge University Press, Cambridge, 1956), pp. 42-45.

6. Brodie, n. 4, p. 96.

revolution that forced the U.S. strategists to adjust the new reality. Thus it must be stated that the strategy of nuclear deterrence emerges only after when U.S. monopoly is broken. As the Soviets have subsequently said, they never subscribed to the U.S. doctrine. It is in this sense that the remark of P.M.S. Blackett (quoted above) must be appreciated. The differences between the U.S. and the Soviet positions will emerge in our subsequent discussion.

A CONCEPTUAL ANALYSIS AND VARIOUS
NUCLEAR DETERRENT STRATEGIES:

"To deter" literally means to stop someone from doing something by frightening him.... dissuasion by deterrence operates by frightening a state out of attacking, not because of the difficulty of launching an attack and carrying it home, but because the expected reaction of the opponent will result in one's own sever punishment.⁷

In a simple two - party situation, State A's deterrent force accomplishes its purpose by frightening state B out of making the military strike that it would have made had the deterrent threat been ineffective.

7. Art, Robert J. and Waltz, Kenneth N., The Use of Force, (Little Brown Pub. Boston, 1971), p. 6.

Conceptually deterrence has been distinguished between the element of punishment and denial. The former is the U.S. and the latter is the Soviet version.

- (1) DETERRENCE BY PUNISHMENT: (has been the American position):

Under this the side that might desire to start a war would not do so because it would believe that the side that is attacked could inflict "unacceptable damage" (i.e., punishment) on the attacking side.

- (2) DETERRENCE BY DENIAL (Comes close to describing how the Soviet view the situation):

Under this the side that might want to initiate a war will not do so because it is convinced that it can not achieve its war objectives. Thus, it would have no reason to begin a war.

DETERRENCE BY PUNISHMENT : AMERICAN STRATEGY

From the tactic of city busting to the doctrine of discriminate deterrence, the U.S. strategy has depended on punishment as its ingredient.

1947(TRUMAN): CITY BUSTING - AS DETERRENT STRATEGY

Under conditions of monopoly over atom bomb (described as absolute weapon by Brodie), Truman adopted the strategy of attacking civilian and military targets in Russia.

In this improvised way, the strategy sprang up. At this time, deterrence was straight-forward and simple. The major advantage of the strategy was that it played to American's strength and Russia's weakness. Moreover it seemed to offer a relatively cheap (politically and economically speaking) to maintain peace and freedom of Western Europe: whether or not it would work, no one knew.⁸

1948 : EXTENDED DETERRENCE

Soviet conventional superiority in Europe greatly exaggerated after world war II. U.S. in turn adopted this strategy to protect Western Europe (non-nuclear allies) against Soviet Union. 7,000 U.S. tactical nuclear warheads were eventually stationed in Western Europe.⁹

1953 : (EISENHOWER/DULLES): MASSIVE RETALIATION

Overwhelming nuclear superiority fiscal considerations and U.S. experience in Korean war led U.S. policymakers to adopt this strategy. Under this an act of communist aggression could elicit from the U.S. a devastating response by means and in places of its own choosing.¹⁰

8. Brodie, n. 4, p. 98.

9. Catudal, Honore M., Nuclear Deterrence : Does It Deter? (Mansell Pub. Ltd., New York, 1985).

10. Dulles, J.F., The Evolution of Foreign Policy, (Department of State Bulletin, Washington, 1954); He said, "The basic decision was to depend primarily upon a great capacity to retaliate, instantly, by means and at places of our choosing".

In this way the possible use of nuclear weapons - rather than deployment of major ground and air forces - became the declaratory American deterrent posture against possible Soviet and other aggression.

Actually, this policy of "massive retaliation" contained a number of structural flaws, which in the end led to general discrediting of the policy. The most serious shortcoming was the problem of credibility it posed. The "all or nothing" character of the policy was simply not credible against any but the most important contingency - a devastating all out nuclear attack on American cities.

STRATEGIC VULNERABILITY:

As time went by, U.S. policymakers became increasingly concerned with their vulnerability to a surprise Soviet attack. For deterrence to work, they claimed, the Kremlin must never attain the ability to disarm the United States by striking first. This hypothetical capability came to be called, in the strategic lexicon, a "first - strike" capability which simply means the ability of one State to launch a disarming strike against an adversary; that is, one State by striking first and hard, would be able to destroy an adversary's ability to strike back with any effectiveness.

Here U. S. deterrence strategy rests on the ability of the U. S. to retain a secure, Second strike force.

GRADUATED DETERRENCE:

Basically, this strategy relied on America's superiority in "tactical" nuclear weapons. Proponents hoped to develop a form of limited nuclear war strategy to deter future Korean size offensives by using relatively few nuclear weapons against enemy troops on the battlefield without having to expand the area of conflict geographically.

Though it was hotly debated in 1950s but never became official U. S. doctrine owing to its impracticability.

1960s (KENNEDY/Mc NAMARA): FLEXIBLE RESPONSE

This strategy which was proposed as a substitute of "massive retaliation" required:-

- (i) A capability to act at all levels ranging from diplomacy through covert action, guerilla operations, conventional and nuclear war.
- (ii) Careful control - what the Administration came to call "fine tuning" (ensuring that actions taken were appropriate to the situation).

(iii) and integration (applying to the tasks at hand all available instruments in a coordinate and purposeful manner).

(iv) Most importantly top priority went to decreasing the reliance on nuclear weapons to deter limited aggression that had been such a prominent feature of the strategy of Eisenhower Administration.

However the strategy fell short in Europe because the NATO allies refused for various reasons to take the necessary steps to adequately build up their conventional military forces.

ASSURED DESTRUCTION(Formerly "assured retaliation"):

Under this strategy deterrence rests on retaining capability to inflict "unacceptable damage" on adversary even after absorbing surprise nuclear attack. Unacceptable damage defined in various ways, e.g. 20 - 30% of Soviet population and 50 - 70% of industrial capacity. If the U.S. retained that capability, it was asserted, nuclear deterrence would work.

MAD: MUTUAL ASSURED DESTRUCTION:

However by the end of the decade both superpowers now had strategic forces which could not be substantially

destroyed by a first strike. The era of Mutual Assured Destruction had arrived. Deterrence now rests on ability of both sides to destroy each other even after they have been attacked first. Thus, the idea of victory, or of defeat of the adversary, was no longer thought to be a rational objective; nuclear weapons were to serve a single purpose, to deter an attack by one superpower against the other - Mutual deterrence based on mutual vulnerability became the foundation of modern nuclear strategy. MAD has in recent years been challenged.

EARLY 1970s (NIXON/SCHLESINGER): FLEXIBLE TARGETTING
(or "Selective Options"):

Here deterrence was to be achieved by developing wide range of strategic options against military targets and gave U.S. more options. It represents revival of counterforce strategy assuming that nuclear war can be kept limited.

LATE 1970s (CARTER/BROWN): Counter Vailing

U.S. strategy became heavily oriented 'to fighting and "endure" a nuclear war, even a protracted nuclear war' and the expanding list of strike targets, signalling this strategic change, now included not only a minimum 200 major Soviet cities, but also enemy missiles in hardened silos. (Presidential Directive No. 59 - or PD - 59).

1981 (REAGAN/WEINBERGER):PREVAILING COUNTERFORCE

Reagan administration went even further. NS DD-13 superceded PD-59 proclaiming that the goal of U.S. policy is to 'prevail' in a protracted nuclear war, and must be able to 'force the Soviet Union to seek earliest termination of hostilities on terms favourable to the United States. It was consistent with quest of Reagan administration for nuclear superiority.

NUTS (NUCLEAR UTILIZATION TARGET SELECTION):

An unofficial name given to various targetting strategies developed in context of emphasis on deterrence through development of nuclear war fighting capability. It assumes that nuclear weapons can be used in certain circumstances without unleashing catastrophic series of consequences. Two new ICBM systems - the MX (Missile Experimental) and the Midgetman; Trident submarines; Strategic bombers - the B-1 B and the so called "stealth" were developed. Along with the massive strategic build up the Administration developed plans for further expansion of the counterforce deterrent doctrine. Reagan's top secret NSDD is the first declaratory policy statement of a U.S. Administration to proclaim that U.S. strategic forces must be able to win a protracted nuclear war.

APPRAISAL

Different models were adopted by U. S. strategists. There was no single model in its evolution. Conceptually there is heterogeneity of models as maintained by Payne.¹¹

- Major doctrines of nuclear deterrence adhered to by the United States in the postwar period suffered weaknesses and were based on half truths. For example during the Mc Namara phase there was a ferocious missile programme on the plea of missile gap. Yet, once the satellites went up, everyone knew that such a gap did not exist.
- A close study of the historical record for these years would seem to show that the Soviet Union was not seriously deterred by the various nuclear deterrent postures of the U. S. if they were clearly concerned by their implications and American nuclear superiority.¹²
- Nuclear deterrence is based on threat to use nuclear weapons.

11. Payne, B., Nuclear Deterrence in U.S. - Soviet Relations (Westview Pub., Colorado, 1982), p.58-74.

12. Gromyko, A., American Theoriticiane Between Total War and Peace, Voyennava mysl, No. 4, 1969 - quoted in Catudal, n. 9, pp.

- That in turn it leads to arms race causing nuclear winter.
- If the MAD phase was aimed at controlling the Soviet behaviour in the third world countries, then in this also nuclear deterrence failed since many countries, became liberated which according to Halliday partly explain the beginning of the Second Cold War.

SOVIET DETERRENT STRATEGY

Soviet military doctrine has continued to be predicated on the assumption that if a general nuclear war should occur, all elements of the armed force would contribute to waging a decisive struggle aimed at defeating world imperialism. Soviet military power, and the constant enhancement of its capability and readiness, is thus justified primarily for deterrence, as well as to wage a war if one should come despite Soviet efforts to prevent it. This view has been consistently held by the Soviet military and political leaders. It is not accurate, as some Western commentators have done, to counterpose Soviet military interest in a "war fighting" (and hopefully "war - winning") posture to a "deterrent" one.

MID 1950s:

Soviet military had first developed a concept of "preemptive action" in response to an imminent and irrevocable decision to attack in the mid - 1950s.¹³ It was explicitly not a euphemism for a surprise first strike, but represented a last minute seizure of the initiative to forestall an enemy attack.

1960s:

The preemption concept developed in pre missile age, and explicitly discussed only in 'Military Thought' in the 1950s, was evidently modified in the 1960s by the concept of 'launch on warning or under attack'. From this standpoint, launch under attack may be a step toward stability from preemption, but it remains a potentially destabilizing and dangerous possibility and U.S. adopted the "Fixible Response" strategy to discourage the Soviets from any degree of reliance on it.

MID 1970s on WARDS:

The emphasis has, however, steadily shifted from the mid - 1970s to the mid 1980s towards the absolute need to prevent war, considering the unwinnability of nuclear war. Sovietologists recognised the strategy of

13. Garthoff, Raymond L., Soviet Strategy in the Nuclear Age, (New York, 1958).

mutual deterrence according to the U.S. experts. However, the Soviets call it "Strategic Parity" and now are poised for a breakthrough in their offensive strategy. Gorbachev is moving towards defensive doctrine, strategy and combat readiness.

AMBIGUITY OF DETERRENCE DOCTRINE

Most of the theoretical problems with the idea of nuclear deterrence stem from vague notions and some questionable assumptions. These weaknesses have been highlighted by historians, diplomats and critical social scientists, although until now little systematic effort was made to combine their findings and make use of them.

The first major problem with the concept of nuclear deterrence is the way in which it sprang up. Taken from the conventional context, it has radically been transplanted to apply with assured validity to the nuclear context. This was done without adequate thought being given to the fact that the conventional and nuclear situations are fundamentally dissimilar. In the past, conventional weapons were amassed to deter enemy aggression before actual war, and they were also used to defend against that aggression if deterrence failed

(which was not infrequent). Today that practical utility of nuclear weapons, which can wreak havoc on an unprecedented scale, is highly questionable should deterrence fail.

The second serious problem with nuclear deterrence has to do with the notion of "rationality" which underpins the concept. Considerable evidence has been accumulated by social scientists and others, the net effect of which is to suggest that the rational - actor model does not prevail across the board in international politics. High-level decision makers frequently do not act rationally, particularly under the stressful conditions inherent in crisis situation when their tolerance for ambiguity is reduced.¹⁴ Moreover, as some scholars have noted, in stressing the alleged rational behaviour of statesman, strategic thinkers have tended to overlook the basically irrational component of the strategy when applied in the contemporary era. How rational is it for one side to threaten the other with massive destruction when the other side is capable of responding in kind?

Critics of nuclear deterrence maintain that nuclear war is, and ought to be, unthinkable. And it is true

14. Catudal, n.9, pp. 56-61.

that the proponents of deterrence have not made the danger of nuclear war, the central feature of their analysis. Indeed, as the Reagan Administration's emphasis on a nuclear war - fighting strategy suggests, there seems to be a wide spread notion among U.S. military planners today that a "rational" government must plan to initiate nuclear war if only to deter. And if deterrence fails, the United States must be ready to "prevail" in a nuclear war.

The third major weakness in nuclear deterrence strategies is - the problem of credibility. On the one hand, proponents of deterrence argue that the threat must be credible to work in the way it should (so that peace will be obtained). Yet how credible is the threat to commit mutual suicide? Henry Kissinger stated the case even more strongly when he said: "It is absurd to base the strategy of the West on the credibility of the threat of mutual suicide".¹⁵ The reality is that we know little about the psychology of credibility; yet deterrent theorists just assume it in their matrices.

Fourth, there is the great difficulty in operationalizing a concept which is inherently ambiguous. Who is being deterred? At what level? The lack of

15. Speech of Henry Kissinger. Sept. 1, 1979 in Brussel, Survival, (November-December, 1979), pp. 264-272.

clarity in the concept-turned general policy often creates situations in which the threat of retaliation is blurred and thus ineffective.

A fifth significant weakness in nuclear deterrence strategy is that it rests to a large extent on game - theoretical assumptions. However, mathematical theory quite obviously falsifies the way in which many decisions are made in real world political contexts.

A sixth major problem with nuclear deterrence is the notion of sufficiency which underpins the theory. The development of new and more nuclear weapons systems is often justified by invoking the name of deterrence. Yet no strategic thinker can say with any degree of certainty how many - or what kinds - of weapons are sufficient for deterrence. The result is an upward spiral of the arms race which is frequently justified on the need to continue to deter the other side.

A seventh important conceptual problem with nuclear deterrence is its uni-dimensional character. Basically the theory relies on instilling fear in an opponent to change his behaviour. Thus deterrence tends to dis-regard all other factors which may influence a foe's attitude. As a consequence, it leads to an imprudent militarization of foreign policy (in the attempt to back up

the threat). An overemphasis on deterrence stands in the way of implementing such traditional elements of State interaction as classical diplomacy and economic exchange which, at the very least, should supplement a strong defensive posture.

Eighth, the policy of nuclear deterrence tends to promote and rely on a "devil image" of the adversary. Such an approach tends to perpetuate enmity and makes accommodation much more difficult. It also may turn into a self-fulfilling prophecy. As Ambassador George Kennan said: "If we insist on demonizing these Soviet leaders, on viewing them as total and incorrigible enemies, that, in the end, is the way we shall assuredly have them".¹⁶

We know from a study of history that there is no such thing as a permanent enemy. This not unsubtle truth was reaffirmed in the 1970s when the "devil image" of Communist China to which important U.S. policy - makers had subscribed for twenty years was replaced by a new image of Beijing as a limited adversary and, possibly, even a potential ally.

Finally, a policy which ensures an overreliance on threats in a relationship may actually be very

16. Speech of George Kennan at Dartmouth College on November 16, 1981 - quoted in Catudal, n. 9, p. 79.

dangerous. For as many psychologists tells us, people react differently to threats. While some may be induced to act more cautiously, others may actually be provoked to strike out in desperation. To be sure, much depends on the mindset of the adversary, but deterrence fails to take this important distinction into account. Paradoxically, then the very weapons intended to deter nuclear war could well precipitate it, with consequences that are intolerable for civilization.

DECLINE

Our preceding discussion hints at two points that sign a shift from strategy of nuclear deterrence. These are: the emerging ideas on common security as opposed to national security and defence as opposed to deterrence.

By the early 1980s, the strategic edifice of deterrence was in shambles. The underlying assumptions of the deterrent strategy came to be challenged both from within and without the American strategic establishment. The collapse of SALT process in 1979, the antipathy of the Reagan Administration towards Arms control, the challenge of Reaganites to the reigning orthodoxy of Mutual Assured Destruction, their

embrace of the idea of victory in a nuclear war, the new use of strategic defences or Star War techniques, represented the crisis in U.S. - Soviet relations, as well as upheaval in Western deterrent thought.

The challenge to the doctrine of deterrence also emerged from an unexpected quarter - the rising peace movements in the West and Non-aligned countries. The disillusionment with the traditional ideas of nuclear deterrence and arms control, which had quite obviously failed to curb the nuclear arms race, and intensified fears of a nuclear holocaust, brought forth critical questioning of nuclear deterrence, by the people hitherto uninitiated in nuclear strategy. These included a variety of groups, including the church and the freeze movements. Ecological movements also had their impact on the re-examination of nuclear deterrence. The ideas of nuclear free zones, corridors and countries captured the imagination of people and leaders in countries as different and far off as Newzealand and West Germany.

Peace is a matter of the avoidance of all kinds of war; disarmament could be accepted as an element of the solution of the problem of arms race (inherent in the deterrent strategy) and as a necessary condition of the evolution of a peaceful international order. Disarmament

is not a new phenomenon having come to be recognized only after the second world war. Immanuel Kant (Perpetual Peace) held that elimination of standing armies was one of the essential requirements of peace between states. Similarly, J.J. Rousseau's idea of world confederation and Lenin's proposals during the inter war period are also worth mentioning.

A series of peace movements and treaties stood for the elimination of nuclear weapons, nuclear tests and arms escalation, viz. Eisenhower doctrine (1953), proposals of the UN sub-committee on disarmament (1954), London Conference (1957), the Indian proposals on disarmament (1957), the Bulgarian proposals (1958), the Polish proposals (1958), the Khrushchev Offers (1959), the Geneva conference recommendations (1960), the Kennedy proposals (1961), Partial Test Ban Treaty (1963), Non-Proliferation Treaty (1968), SALT - I (1972), Dual Track Decision of NATO (1979), SALT II (1979), and so on.

In actual political practice, all countries are becoming increasingly concerned with the elimination of nuclear weapons and strengthening of security for all, which is quite evident in Olof Palme Commission recommendation of Collective Security and Stockholm Agreement on Confidence Building Measures (1986).

The Six Nation Peace Initiative calls for a freeze on all kinds of nuclear weapons and for an end to nuclear testings, Delhi Declaration (Nov. 27, 1986); Gorbachev's Comprehensive International Security proposal (Jan., 1986) as against 'Common Security' which overlooks the security concerns of developing nations, as well as other proposals have given new significance and immediacy to the idea of nuclear disarmament.

The winds of change are to be seen in the Centre of the world social systems, i.e. the European confrontation. A new wind against nuclear weapons and nuclear deterrent strategy has emerged both in the European and strategic weapon system between the U.S. and the USSR. Geneva summit (1985), Reykjavik Summit (Oct. 12, 1986), Washington Summit (Dec. 8, 1987), Moscow Summit (May 29-June 1, 1988) and their pledge to strive for a treaty on strategic arms reduction (START) are the signs of the decline of Nuclear Deterrence.

Geneva Summit in 1985 recognised:

- (a) That nuclear war could not be won, and
- (b) That there could not be military superiority. The joint statement went against the plan of actually fighting and winning war games.

Similarly there appears to be a move towards a certain dismantling of confrontation in Europe since there is now an agreement to eliminate Intermediate Nuclear Force (INF) and shorter range forces from nuclear arsenals. It means transcending the nuclear regime and opening up the possibility of achieving a world without nuclear weapons. The present nuclear freeze movements, the peace movements, seem to be different from those that started against Euromissiles in the earlier part of this decade, in that while the former seem to have an impact both on Reagan and Gorbachev, the latter did not affect Reagan. It will in any case reduce nuclear arsenals by 4% of the present overkill capacity of 50,000 nuclear weapons. (see Appendix - I).

It is also suggested that if this is followed up by:

- (a) a reduction in strategic weapons by 50% with or without sub-limits, and
- (b) limitation of nuclear tests in terms of annual number and kilotonnage, and observation of the Anti-Ballistic missile Treaty for the next decade, it may mean decisive change by 1997, i.e. by the end of the century.

A vivid manifestation of the greater involvement of the world community in efforts to prevent nuclear war is the growing concern of the United Nations with such problems. The charter of the United Nations is the antipode of the desire to achieve military superiority and hegemony, of a "position-of-strength" policy, of "Crusades" and of attempts to thrust on peoples systems that are alien to them.¹⁷ Today all the peoples of the planet have a common enemy - the threat of a nuclear catastrophe against which they must act as United Nations.

Nuclear Winter Hypothesis is another reason for its decline. It has been suggested that the prospect of a nuclear winter could make nuclear deterrence point-less and inoperative since a self-defeating, civilization-destroying resort to force lacks all credibility as a threat and all reason as an act.¹⁸ Prof. Carl Sagan and some Soviet scientists have independently propounded the Nuclear Winter Hypothesis.

Last, but not the least new and emerging technologies with greater command, control, precision and accuracy; adding fourth dimension (space) to the deterrent strategy,

17. U.N. Study on deterrence, Strategic Digest, (January, 1987), p. 14-65.

18. Sederberg, Peter C., Nuclear Winter, Deterrence and the Prevention of Nuclear War ed. (Praeger Pub., New York, 1986), pp. 3-14.

has further accelerated these changes. (See Appendix-II). The greater control and precision of new weapons makes the exclusive reliance on nuclear weapons redundant. Ironically, Reagan's announcement of SDI met the anti-nuclear sentiment by emphasizing on the non-nuclear shield.

Does these peace movements, proposals, treaties (INF) mean the elimination of nuclear weapons or demise of nuclear weapons?

Despite all this, it is sought to be shown that:

- (a) the world of nuclear weapons have a tenacity of its own;
- (b) that the emerging scenario may not be free from confrontation, and
- (c) that the strategic scenario in 1990s will be of offense and defense.

Why has Reagan offered the vision of a world without nuclear weapons? Are the reasons for doing so the same as those of Gorbachev? One of the reasons for offering the new scenario is the emergence of exotic technology which immediately may give ascendance to non-nuclear weapons and only intermediately offer to new exotic weapons with nuclear technology, as chemical

lasers and particle beams respectively show. Ronald Reagan after the Reykjavik Summit said, "So, if there is an impression I carry away from these October talks, it is that unlike the past, we are dealing now from a position of strength."¹⁹

With this approach of superiority, Soviet Union is bound to move more speedily "towards even more breakthroughs". Despite all his initiatives and flexibility Gorbachev is saying with confidence that he will not allow the US to achieve military superiority with new technology in a new area - immediately the area of non-nuclear technology.

Secondly, the United States continues to regard the Soviet Union as enemy No.1 and has shaped its global strategy and arms control policy in accordance with its national security policy. Major objectives of US to support its interests are varied:

- (i) to maintain the strength and vitality of US alliance relationship;
- (ii) to assure unimpeded US access to oceans and space;
- (iii) to prevent Soviet Union to dominate the Eurasian land mass or any other hostile power or coalition of powers;

19. Reagan, Ronald, Report on Reykjavik, United States Department of State, Bureau of Public Affairs (Washington D. C., Current Policy, No.875), p.3.

(iv) to reduce its reliance on nuclear weapons by strengthening conventional forces, pursuing equitable and verifiable arms control agreements, and developing technologies for strategic defence.²⁰ (The USSR subscribes to the idea of common security, strategic parity and a shift towards comprehensive international security as visualised in the Gorbachev proposals of January, 1986).

The Third reason for believing that a world without nuclear weapons may not materialise is owing to the limitations of the arms control lobby in the United States and the reluctance of the European powers to give up the strategy of nuclear deterrence and flexible response. Robert S Mc Namara's and Hans Bethe's latest position goes on to prove this. He points to the impracticability of a world without nuclear weapons. He says, "Despite the desirability of a World without nuclear weapons, an agreement to that end does not appear feasible either today or for the foreseeable future".²¹

20. "The White House: Fundamentals of U.S. National Security Strategy", Strategic Digest, (April 1987), pp. 630-32.

21. McNamara, Robert S., Blundering into Disaster: Surviving the First Century of the Nuclear Age (New York, 1986), p. 89.

In his reaction to Reykjavik proposals he said, ".....NATO's current military strategy and war plans are based on the opposite premise. And many - I would say most - US military and civilian officials, as well as European leaders, hold the view that nuclear weapons are necessary deterrent to Soviet aggression with conventional forces.....". He criticised thus, "...my criticism to Gorbachev's vision is not that it is undesirable, but that it is infeasible under foreseeable circumstances". This is also the position of Henry Kissinger.

Fourthly, the British, the French and the Chinese have to be persuaded to give up their nuclear arsenals and this nobody can safely say.

Fifthly, even a person like Jonathan Dean, who has suggested a package of ten steps to eliminate nuclear weapons comes to the conclusion, "....moving from a level of 3,000 warheads or for some lesser minimum deterrent to a situation where no country has any nuclear weapons would be a particularly dangerous and difficult process". This is because of "Soviet cheating" and danger of a conventional war, according to Dean.

The latest Gorbachev announcements on unilateral reduction in conventional weaponry and NATO response to it particularly show the difficulty of the situation to remove confrontation due to dogmatic approaches.

Sixthly, the limitations of INF further goes on as a factor for the durability of Nuclear Deterrence:

- Nuclear warhead device will not be destroyed. According to Shultz, "it can be re-configured".
- "The US strategic nuclear deterrent ... remains the ultimate guarantor of NATO's collective Security."²²
- "Flexible response clearly does not depend on any single weapon system.....NATO would retain a variety of systems that would perform the critical deterrent missions."²³
- There is no limitation to produce nuclear fissionable material.²⁴
- "We have now a NATO with dual purpose aircraft i.e. aircraft capable of carrying nuclear explosive devices and they have a considerable range..... Those are not affected by this treaty".²⁵

22. The INF Treaty-Hearings Before the Committee of Foreign Relations. United States Senate, 100th Congress. (Jan. 25, 26, 27 and 28, 1988, Part I; Shultz's Statement on p. 14).

23. Ibid., p. 14.

24. Ibid., p. 35.

25. Ibid., p. 71.

- When asked if the treaty would eliminate air and sea launched nuclear capabilities, secretary Shultz said - NO.
- Dual purpose missiles are not eliminated.
- Neutron particle beam is not eliminated, X-Ray weapons are there.
- Americans continue to supply weapons to West Germany.

Finally, even a START agreement will not eliminate Nuclear weapons capability since it abolishes only 50% of nuclear arsenals.

The strategic scenerio in 1990s would be a mix of offense and defence in which movement would be towards defence. (whereby the elements of SDI would be incorporated as defence against ballistic missiles).

It suggests :

- Strengthening of the NATO's conventional deterrence/forces and retaliation. (U.S. - allies co-operation in the conventional field under Sam Nunn legislation of 1986, the launching of Conventional Defence Improvement

Initiative (CDII) by the NATO Defence Planning Committee in May 1985, and selection of six CDII programmes to be pursued co-operatively, further proves this)

- modernisation of nuclear weapons and dual capable weapons;
- to have offensive weapons and strategic defence both for the US and NATO
- it would involve both nuclear and non-nuclear weapons.

CHAPTER - 2

EVOLUTION OF INDIA'S NUCLEAR POLICY

Chapter 2

EVOLUTION OF INDIA'S NUCLEAR POLICY

This chapter offers a brief survey of the evolution of India's nuclear policy. [Such a policy has shifted from a commitment not to acquire nuclear weapons to a position of keeping India's nuclear option open.] This shift has been brought about by a combination of internal and external political developments which were perceived as posing a threat to country's national security. The Chapter highlights that India will further advance its programme to reach a level of self-reliance, continue its opposition to international non-proliferation and safeguard measures and keep the military option of its civilian nuclear program open.

Despite the claims of succeeding Indian government that their nuclear and space programs have been conducted exclusively for peaceful purposes, the sophistication of such programs are increasingly making India a threshold nuclear weapon power in the perception of many scholars. They argue that India has already detonated an underground nuclear explosive device in May of 1974, and in July 1980 India became the sixth nation in the world to launch its own rocket satellite into space. The position of the Indian government towards its nuclear program has changed gradually from one administration to another to

a point of ambiguity. That ambiguity has served the advocates both of India going and not going nuclear. (References of the pro-bomb and anti-bomb scholars is given in Chapter 4).

While examining this evolution of India's nuclear policy, a number of problems are to be encountered. It is exceedingly difficult to identify precisely the perceptions of India's policy-makers and the impact of such perceptions upon the formulation of the country's nuclear stands. Similarly it is however sometimes difficult to get to know the actual interplay of opinion of political, administrative and military chiefs, since we have adopted the British pattern of decision making on security issues. Decision making on national security has the following variables i.e. rational choice, bureaucratic rivalry and organisational process. These three factors operate in different permutation and combination.

Needless to say, any comprehensive analysis of the evolution of India's nuclear policy should be conducted in terms of three main considerations:

- The first of these is technological in nature as it refers to the advancement of India's nuclear establishments and their present and future military capabilities. The sophistication

of such programs are undoubtedly making India a nuclear threshold power.

The domestic setting, in terms of the attitude of the various Indian governments and their policy influences, is the second consideration.

The third pertains to the external environment in terms of India's attitude towards some international non-proliferation measures and outside threat to India's national security. It is clear that such a threefold approach will help unravel the complexity of India's nuclear thinking and facilitate the formulation of sensible judgements concerning the future of India's nuclear program. Nevertheless, a detailed discussion of this sort is beyond the confines of this dissertation. This explains why the ensuing discussion will dwell mainly on the second consideration.

Despite these reservations, the formation of India's nuclear and security policy in the past decade or so has increasingly become a complex network of interests in which internal determinants of the country's defense and foreign policies can no longer be ignored or taken for granted. This situation has been produced

by a number of political and military developments in and outside India. Such developments include the Sino-Indian conflict coupled with China's acquisition of nuclear weapons, the superpowers rivalry and intervention in the region and the gradual decline of the power and the position of the Central Government in New Delhi. These factors have made the various administrations in the post-Nehru era more responsive to domestic politics and pressures, since overwhelming support for the government in the parliament, the ruling party and the public at large ceased to exist. In this context, three potential sources of influence upon the making of nuclear policy in India are emerging today: (1) political Parties, (2) Public opinion, including the press and interest groups, and (3) the intellectual elite. (This shall be discussed in detail under Chapter 4).

A. INDIA'S NUCLEAR POLICY DURING THE NEHRU ERA 1947-64:

Nehru's general perspective on international relations and his pacifist attitude were largely reflected in India's nuclear policies in the 1950s. Prior to the 1962 border clashes, Nehru's nuclear policy assumed four orientations:

- a call for complete nuclear disarmament in pursuit of which he suggested nuclear test ban;

- a rejection of nuclear weapons possession;
- a commitment to develop nuclear energy for peaceful purposes and
- a persistent resistance to the imposition of the international safeguards upon India's nuclear facilities.

A closer look at these four components of New Delhi's nuclear policy indicates that there are two basic sets of trends with an apparent contradiction within each trend:

- (1) A firm opposition to the development of nuclear weapons together with a commitment to develop nuclear energy for peaceful purposes and to achieve nuclear self-sufficiency. It is known that the increasing sophistication of a country's nuclear energy program for peaceful purposes carries with it the possibility of applying it to military uses.
- (2) A desire for complete and universal nuclear disarmament coupled with an implicit appreciation of the military and political value of nuclear technology. This was evident in India's continuous resistance to placing its nuclear

establishment under international safeguards and opposition ~~to~~ international attempts to create an International Atomic Energy Agency.

At any rate, while it is difficult to assess the real intentions of the program, the declared policy of the Nehru government remained publicly committed to its policy of nuclear self denial.

An aversion to the use and stockpiling of nuclear weapons was constantly enunciated by Indian officials throughout the fifties. The abhorrence of nuclear weapons was based on moralistic, humanistic considerations and the non-use of nuclear weapons as an instrument of war.¹ On November 28, 1957, Mr. Nehru appealed to the leaders of the then nuclear powers, the US, the USSR and the UK, to bring to a halt to the use and the testing of nuclear weapons in an attempt "to save humanity from the ultimate disaster which face it and to work for the pursuit of peace, security and progress."²

India's opposition to all forms of nuclear weapons was apparently prompted by four considerations.³ It was

1. Krishna Menon's statement in the First Committee of the UN, November 23, 1954 in Jain, J.P., Nuclear India, Vol. II., (Radiant Pub., New Delhi, 1974), p. 9.
2. Asian Recorder, (New Delhi), 1957, pp. 1747-50.
3. Jain, J.P., Nuclear India, Vol. I (Radiant Pub., New Delhi, 1974), pp. 1-5 and 170-172.

contended that a decline in the international tension
 ✓ would increase the viability and the popularity of the
 policy of non-alignment. At the same time, it would
 ✓ reduce the chances for a global nuclear war. Furthermore,
 ✓ disarmament would help India to avoid heavy burdens of
 the arms race, and instead enable her to devote her
 limited resources for development purposes. Finally, it
 ✓ was held that the achievement of nuclear disarmament
 would help to improve India's national security.

In line with its policy of nuclear disarmament,
 the Nehru government was firmly opposed to acquisition
 of nuclear weapons. Speaking at the inauguration of
 the APSARA nuclear reactor on January 20, 1957, Nehru
 maintained:

"No man can prophesize the future but I should
 like to say, on the behalf of my government, and I think
 I can say with some assurance, on the behalf of any
 future government in India, that whatever might happen,
 whatever the circumstances, we shall never use this atomic
 energy for evil purposes".⁴

4. Amrit Bazar Patrika, (Commentary on Nuclear Explosion;
 Articles and statements of various leaders),
 (Calcutta, 19th May, 1974).

Nehru's commitment to abstain from acquiring nuclear weapons did not rule out the development of nuclear energy for peaceful purposes to meet the needs of growing population and the industrialization of the country, particularly in view of India's limited sources of conventional energy. In a major speech of India's nuclear policy the Prime Minister told the Lok Sabha, on May 10, 1954, "The rise of atomic energy for peaceful purposes is far more important for India than for a developed country such as France, which is an industrially advanced country".⁵

The insistence of the Nehru administration on the development of nuclear energy for peaceful purposes resulted in a persistent opposition to international attempts to control and safeguard the national uses of atomic energy of the non-nuclear countries. Government resentments to such efforts emanated from a belief that nuclear energy program was conducted exclusively for civilian applications; therefore, it was argued, that external restraints were unnecessary.

[With the worsening relations between India and China and the border clashes of 1962, alongwith the

5. Quoted in Patil, R.L.M., India: Nuclear Weapons and International Politics, Part iii; Public Document, (National Publishing House, 1969), p. 49.

reports of an imminent Chinese nuclear device detonation, India's posture toward nuclear weapons gradually started to change. }

The four-year period 1960-64 was characterized by a sense of uneasiness and uncertainty concerning the possibility that China would acquire nuclear weapons. This feeling of uneasiness left its impact upon India's nuclear policy. As early as 1959, the Indian delegation to the UN gave ardent support to the adoption of measures that would bring an immediate cessation to the testing of thermonuclear and nuclear weapons.⁶ One could argue that the underlying motive for such an attitude was mainly prompted by the desire on the part of the Indian government to reduce the chances of a Chinese nuclear detonation at that time. By 1961, India's anxieties were more visible when the question of nuclear weapon proliferation started to receive a high priority in the deliberation of New Delhi's delegation to the UN.⁷

[The year 1962 marked another change in India's nuclear thinking. In contrast to its previous policy to complete nuclear disarmament, New Delhi unveiled a

6. Foreign Affairs Records, (Shastri Bhavan, New Delhi), Vol. V, No. 11, 1959, pp. 390-410.

7. Ibid.

new interest in the retention of a number of nuclear weapons and their delivery system until the last stage of disarmament process. Such a nuclear force, if held, would act as a deterrent, against any threat, conventional or nuclear.⁸ J

8. Statement by the Indian Representative V. C. Trivedi in the ENDC, August 12, 1965.

(B) ATTITUDE TOWARDS TEST BAN TREATY 1963:

The most difficult question in the disarmament negotiation was the one pertaining to the detection and the verification of nuclear explosions. The position taken by the rival blocs was so rigid that there was no hope of any breakthrough in the negotiations. It was at this juncture that India and other NAM countries helped to bring about the condition favourable for the two superpowers to by-pass the obstacle and effect an agreement. The present chapter will highlight India's attitude towards test ban treaty and role played by the Eighteen Nations Disarmament committee (ENDC).

The ENDC was set up in December, 1961 following the endorsement by the UN Central Assembly. Disarmament Commission in 1954 did not even consider Nehru's proposal for an agreement to ban nuclear weapon tests. However, as the years rolled by, the nuclear powers realized that they must reach an understanding on such measures.

Addressing the first conference of ENDC on March 20, 1962 Mr. Krishna Menon made it clear that the only explosion with which people were concerned were those in air and in the bio-sphere. Since these explosions would be easily detected it would be quite possible that an agreement could be reached. Hence the only thing

that could be done at the moment was to get an agreement among the nuclear powers, that there would be no more explosion and 'if anywhere detected, that would be a proof of the violation of the international treaty'. Mr. Menon suggested that some machinery be set up to go into the matter of reconciling the different positions.⁹

The two different positions were:

- Western power held that only under an international control system could any meaningful agreement be possible.
- The Soviet position was that it would agree to a test ban which would rely solely on the national system of control.

NAM On Western and Soviet Questions:

Arthur Lall in his statement before the conference on April 4 reminded the nuclear powers that they "are not the only two sides in the question of testing; there is the world itself"¹⁰

Meanwhile it was apparent that both East and West were determined to resume a new series of the atmospheric tests. It was at this time that Ambassador Arthur Lall

9. ENDC/PV. 5, 20 March, 1962.

10. Lall, Arthur, Negotiating Disarmaments: The Eighteen Nation Disarmament Conference: The First two years, 1962-64, (Cornell University, New York, 1964), p.20.

told the ENDC that he was directed by the government of India to appeal to the nuclear powers not to resume nuclear tests during the pendency of the conference.¹¹

The appeal found a favourable response in the Soviet Union which stated that it would not conduct tests during the pendency of the meetings provided the western powers also pledge themselves to do so.

EIGHT NATIONS MEMORANDUM:

The NAM countries began to feel that the imminence of the resumed atmospheric tests by nuclear powers would only mean the break off of the negotiations. It was at this time that they came forward with several suggestions. Most of those were discussed by delegates of the NAM countries amongst themselves. A sub-committee consisting of India, Ethiopia and Sweden was set up. After long meetings they reached to an agreement and a memorandum was drafted; which was presented to the plenary meeting on 16th April, 1962.

According to Arthur Lall three significant points emerged from the Eight Nations Memorandum.¹²

11. ENDC/P.V. 19, 12 April, 1962.

12. Lall, n. 10, p. 20.

(a) Change in the Soviet position:

At the commencement of the conference the Soviet Union adamantly rejected the proposal of on-site inspection until there was general and complete disarmament. On 9th May the Soviet Union adopted the new position in regard to inspection. The Soviet representative, Mr. Zorin said, "we agree that it will be possible in individual cases to invite scientists, members of the International Commission to ascertain in loca the nature of the events which are in doubt".¹³

Arthur Lall says that there can be little doubt that the memorandum became the sole basis of negotiation for a test ban to be endorsed by the 17th session of the UN General Assembly. Soon after the Assembly session the Soviet Union wrote a letter to the US President proposing a test ban on the basis of two or three on-site inspection a year. It is an indication of a change in the Soviet thinking. "The Eight Nation Memorandum certainly would appear to have played no small part in stimulating this most significant shift".¹⁴

(b) Shift in the Western Position:

The Western countries held that international Central system should be capable of monitoring a weapon

13. ENDC/P.V. 35, 9 May, 1962.

14. Lall, n.10, p. 23.

test in all four environment. The eight nations refused to agree with the position held by the western powers. However after the instance of the Eight Nations they changed their position and agreed to its proposal. "The Eight Nations efforts helped in opening the door to a firm western position on a ban without controls in all but one environment. The firming up of this position was one of the foundations of the Partial Test Ban when it finally came on 15th July, 1963".¹⁵

The stand of the Non-aligned at the Geneva conference as partner in negotiations was very much enhanced as a result of this memorandum. While accepting the fact that it is only nuclear powers that should play a primary role in the matters of arms control and disarmament the memorandum pointed out to the two super-powers that if they run out of ideas "on crucial aspects of the work of the conference there would be others who would make suggestions and do so perhaps with the endorsement of the General Assembly".¹⁶

Thus the non-aligned states attained a structure which would enable them to act "as conciliators if they can maintain an impartial but necessary daring or undoubtdely united front."¹⁷

15. Ibid., p. 23.

16. Ibid., p. 23.

17. Ahmed, M. Samir, The Neutrals and the Test Ban Negotiations. Occasional Paper (Carnegie Endowment for International Peace, New York), No.4, 1967, p. 30.

Although the memorandum could not produce a desirable agreement in the Geneva conference yet it helped in narrowing the gap between the nuclear powers.

Meanwhile Mr. Nehru stated in the Lok Sabha on April 24, "In fact, some of the non-aligned countries represented in Geneva Conference have put forward some proposal for consideration of the nuclear powers and the nuclear powers have agreed to consider them".¹⁸

During this time the negotiation got set back due to four major development in International relation:

Change in the American Strategic Doctrine:

MacNamara's statement on the necessity of building up NATO's conventional forces so that the alliance would be capable of action other than simply a nuclear response on the event of a limited war.

FRENCH NUCLEAR EXPLOSION IN SAHARA ON MAY 1, 1962:

This underground explosion was detected by the US national instruments. Further, the research of the Vela Project pointed out the possibility of detecting underground tests.

18. Foreign Affairs Record (Shastri Bhawan, New Delhi), Vol. 8, No.4, April 1962, pp. 90-95.

- The ad-hoc Committee created by the US Arms Control and Disarmament Agency (ACDA) evolved a new version of the US position during its meetings in June-July 1962.
- Announcement by the Soviet Union that it would resume nuclear tests on 21 July, 1962.

INDIAN RELATION TO THESE DEVELOPMENTS

Addressing the ENDC on 24th July, 1962, Mr. Krishna Menon said that the government of India regretted the Soviet decision to resume the tests. He told the western powers quoting the document circulated by the US on the Vela Project (ENDC/45) that it was possible for all practical purposes to detect tests of one kind or another. Regarding the position taken by the government of India he told the Committee:

- (1) "that my government is fully committed to the position that no country should be placed in a position of disadvantage by any sacrifices, restrictions or restraints it imposes on itself and secondly that no step in disarmament is worthwhile if as a result considerable armaments are left in the world which can procreate themselves more or less and develop the equipment required for large scale war."

- (2) "it is the considered request of my government that before the General Assembly meet, this committee should make advance which will inspire confidence among the nations and not turn public opinion to cynicism."

Meanwhile on 5 August, 1962 the Soviet Union began an extensive series of nuclear tests which became a world wide concern.

On 27 August two western powers introduced two drafts, viz.

- (i) A comprehensive treaty banning nuclear weapon tests in all environments;
- (ii) A Partial Test Ban Treaty banning Nuclear Weapons tests in the atmosphere, in outer space and under water.

But Soviet Union rejected both the drafts.

INDIA'S STAND:

India welcomed these two drafts. Regarding CTBT Mr. Lall said:¹⁹

"We are well aware of the difficulties which exists at the moment in reaching a comprehensive

19. ENDC/P.V. 78, 3rd September, 1962.

Treaty, although in our view Eight Nations Memorandum remain firm for reaching over agreement on the cessation of all tests.

As for PTBT he observed:

"We would like to observe that in presenting the second draft the US and UK have moved forward from the position, which the leaders of those countries took up in their offer of September 1961 when they proposed the cessation of nuclear weapon tests in the atmosphere. Today the Draft proposes the cessation of tests not only in the atmosphere but in outer space and under water and we observe that there are no requirements of international verification. We hope that this will be acceptable with the aim of going forward and arriving at a treaty which will put an end to nuclear tests."

On November 4, President Kennedy announced that the US atmospheric tests at Nevada had come to an end. Three days later Mr. Khrushchev also stated that the Soviet test would also come to an end by 20th November 1962.

1963 - THE YEAR OF PTBT

Although the ENDC could not bring about an understanding between the two sides. Yet other development during the year helped to bring about the

desired, rather much awaited agreement, in 1963. These developments were:

- The U.N. General Assembly's endorsement of the Eight Nation Memorandum as the basis for negotiation.
- Mr. Khrushchev's letter to President Kennedy on 19 December 1962 proposing a CTBT on the basis of two or three annual inspections in the territories of each nuclear power.
- Mr. Kennedy's reply to Mr. Khrushchev on 25th December 1962.

While talks were going on in Moscow it was announced on 20th June 1963 that USA and USSR had signed an agreement for establishing a communication link (HOTLINE) between the two governments.²⁰

On July 27, the government of India issued a press note welcoming the agreement on the PTBT and stated that India had decided to sign the treaty as soon as it would be made available for signature. Mr. Macmillan and Mr. Kennedy, Pt. Nehru expressed the view that the PTBT is an important landmark in the history of International Relations and understanding.²¹

20. ENDC/P.V. 98, 20 June, 1963.

21. Foreign Affairs Record (Shastri Bhawan, New Delhi), Vol. IX No. 7, July 1963, pp. 153-4.

Thus, we find that it was partly due to the efforts of ENDC the Treaty banning nuclear weapon tests in the atmosphere, under water and in the outerspace was signed at Moscow by Mr. Gromyko, Mr. Dean Rusk and Lord Home on 5th August, 1963.

THE SHASTRI PERIOD : 1964-66

India's second Prime Minister began his tenure of office by restating the views of his predecessor, namely that India did not seek any nuclear weapon. Shastri also shared Nehru's views on non-alignment.

Shastri's modified perspective came after the Chinese atomic explosion in October 1964. There was increasing pressure on the Prime Minister to re-orient India's nuclear policy in the light of the changing circumstances.

The Shastri administration's approach towards China's nuclear explosion was reflected in two ways:

- (a) the acceleration of the process of building up India's conventional military power, and
- (b) a gradual shift in her policy on the use of atomic energy.

Shastri showed a new policy of nuclear flexibility rather than than bringing about a radical change from

Nehru's nuclear policy. In a foreign policy statement to the Lok Sabha on November 27, 1964, Shastri remarked that:

"I cannot say that the present policy of nuclear pacifism is deeply rooted, cannot be set aside, and cannot be changed. An individual may have certain static policies, but in the political field, we can not. Here situations alter, changes take place and we have to change our policy accordingly".²²

With the increasing frequency of Chinese nuclear tests, Shastri preferred a general and implicit nuclear guarantee from the super powers. Government's position was stated by India's permanent representative to the United Nations on 4 May 1965. India called for:

- (i) an undertaking not to use nuclear weapons against countries which did not have them and
- (ii) argued that the member state should pledge through the U.N. to safeguard the territorial integrity of the nations threatened by the nuclear powers.²³

A definite guarantee which India required could not be assured by the super powers or the United States

22. Kaul, Ravi, India's Strategic Spectrum, (Chanakya Pub., Allahabad, 1969), p. 25.

23. Noorani, A. A., "India's Quest for a Nuclear Guarantee", Asian Survey(California), Vol.7, No.7, July 1967), pp.490-502

because of disagreement as to the precise definition of safeguards²⁴ and the settlement of the question of nuclear arms control.

24. Rizvi, Hassan Askani, Politics of the Bomb in South Asia, (Progressive Publishers, Lahore, 1975), p. 17.

(C) INDIA'S ATTITUDE TO NPT : 1968

With the passage of PTBT in 1963 it was expected that other arms control measures would soon follow. One such measure, namely a comprehensive test Ban Treaty has not yet been arrived at. Another measure that has been discussed over five years and at last agreed upon by the Nuclear Powers participating in the ENDC was the treaty on the non-proliferation of the nuclear weapons.²⁵

This sub-section of the chapter deals briefly with the developments connected with the non-proliferation of the nuclear weapons and India's stand on this issue.

On 7th August 1965, the US introduced the draft non-proliferation treaty. It was supported by the U.K., Italy and Canada.²⁶ By the terms of this draft treaty nuclear states would undertake:

- Not to transfer any nuclear weapons to any non-nuclear weapon state either directly or indirectly;

25. The draft resolution on NPT was submitted to the ENDC by the UK, the USA and the USSR on 7th March 1968. On March 11th the two Chairmen submitted a final draft which incorporated some changes. It was submitted in the General Assembly on 14th March 1968. On 12th June 1968, the United Nations General Assembly adopted it as resolution 2373 (XVI). The Treaty came into force on 5th March 1970.

The United Nations and Disarmament., 1945-70 (New York, 1970), pp. 257-307.

26. ENDC/PV 152, 17th August, 1965.

- ✓ - Not to take any other action which would cause an increase in the total number of states and other organisations having independent powers to use nuclear weapons,
- ✓ - Not to assist non-nuclear state in the manufacture of nuclear weapons.

The draft also mentioned the obligations on the part of the non-nuclear states:

- ✓ - not to manufacture nuclear weapons, not to seek, receive, or grant assistance in the manufacture of such weapons,
- ✓ - not to seek or receive the transfer of such weapons into this natural control, either directly or indirectly,
- not to take any other action which would cause an increase in the total number of states and other organisations having independent power to use nuclear weapons.

On September 2, Sweden submitted a memorandum on International Cooperation on the underground explosions.²⁷
 On September 9, UK, submitted a note on "The UK Research on the Technique for Distinguishing Between Earthquakes

²⁷. ENDC/P.V. 154, 2nd September 1965.

and Underground Explosions".²⁸ On September 14, Italy submitted a draft of Unilateral Non-acquisition Declaration.²⁹ Next day a joint memorandum on non-proliferation on nuclear weapons was submitted by the eight non-aligned states representing in the ENDC.³⁰ On the same day they submitted another joint memorandum on the comprehensive Test Ban Treaty.³¹

After long debate the two superpowers -

- (i) ✓ agreed on NPT as priority number one and
- (ii) ✓ accepted the need of a CTBT. India on the other hand accounted ^{ded} first priority to the CTBT whereas the NAM countries (along with India) considered that a treaty of NPT should be "coupled with or followed by other measures of arms control". It should be borne in mind that a Eighteen Nation Committee on Disarmament was created for the specific purpose to bring about a treaty on General and complete Disarmament and not merely isolated measures of arms control.

28. ENDC/P.V., 155, 9th September, 1965.

29. ENDC/P.V., 157, 14th September, 1965

30. ENDC/P.V., 158, 15th September, 1965.

31. ENDC/P.V., 159, 15th September, 1965.

The subject of non-proliferation was taken up by the United Nations General Assembly in its 20th session held between 21st September and 22nd December 1965. On 24th September the Soviet Foreign Minister, Gromyko laid before the Assembly a draft of nuclear non-proliferation treaty.³² The draft treaty would:

1. Prohibit nuclear powers from transferring nuclear weapons directly or indirectly through grouping of states, into the ownership or disposal of states not possessing nuclear weapons, or from granting the aforesaid states or groups of states the right to participate in the ownership; control or use of nuclear weapons;
2. Prohibit such powers from giving nuclear weapons and control over them and over their location and use to limits of armed forces or the individual members of the armed forces of states not possessing nuclear weapons; and
3. Prohibit powers not possessing nuclear weapons to undertake not to create, manufacture nuclear weapons independently or jointly with other states, and to refuse to be associated with nuclear

32. Official Records of the General Assembly: 20th Session, Agenda item 106, Document A/5976.

weapons in any form whatsoever directly or indirectly, through 3rd states or grouping of states.³³

Before this draft, the U.S. draft treaty had already been submitted to the ENDC on 17th August, 1965.³⁴

The U.S. draft resolution stated that the General Assembly would urge the ENDC to accord special priority to a treaty on non-proliferation of Nuclear Weapons.³⁵

The draft resolution was also submitted by the eight non-aligned nations based on five principles.

- The treaty should be void of any loopholes which permit nuclear or non-nuclear powers to proliferate, directly or indirectly, nuclear weapons in any form;
- The treaty should embody an acceptable balance of mutual responsibilities and obligations of the nuclear powers;
- The treaty should be a step towards the achievement of general and complete disarmament and, more particularly, nuclear disarmament;

33. The United Nations and Disarmament 1945-70 (U.N. Publication, New York, 1970), p. 175.

34. ENDC/P.V. 152, 17th August, 1965.

35. Official Records of the General Assembly, 20th session, Documents A/C. 1/L, 337.

- There should be acceptable and workable provision to ensure the effectiveness of the treaty;
- Nothing in the treaty should adversely effect 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".³⁶

On 3rd December 1965 the General Assembly also adopted a draft on the suspension of nuclear weapons tests by 92 votes to 1 with 14 abstention. The resolution (Res. 2032 (XX)):

- urged the suspension of all nuclear weapon tests;
- called on all countries to respect the spirit and provisions of the Moscow Test Ban Treaty;
- requested the ENDC to continue with a sense of urgency its work on a comprehensive Test Ban Treaty and on arrangements to ban effectively all nuclear weapon tests in all environments.

On 5th July, 1966 the Canadian delegation submitted a paper³⁷ setting forth the draft treaties of the both the superpowers. This showed that there

36. The United Nations and Disarmament 1945-70 (UN Publications, New York, 1970), p. 277.

37. ENDC/P.V., 175, 5th July, 1966.

had already been a large extent of agreement on important points. This paper proved a great help in evolving a consensus among the signatories.³⁸

On the lines of this paper a Non-Proliferation Treaty was prepared and set forth for signatures. (for details of the treaty see Appendix - IV).

Indian delegate V.C. Trivedi³⁹ presented India's concern for this treaty and proposed for a CTBT. He appealed to the committee (ENDC) that it is possible to reach an agreement on the following lines:

- There should be suspension of all tests;
- The superpowers should agree to a formal treaty prohibiting underground tests;
- The scientific developments in the field of identification should be pursued vigorously so that threshold could be lowered and eventually eliminated converting the de-facto suspension into a de-jure prohibition as early as possible.

Later the Indian delegate brought to the notice of the committee the close link that exists between the measures (viz. NPT and suspension of Nuclear Weapons Tests).

38. ENDC/P.V., 275, 21 July, 1966.

39. ENDC/P.V. 269, 30th June, 1966.

In spite of these suggestions, the western powers remained adamant to the provisions of NPT and Soviet Union refused to accept any international verification.

On the line of Indian suggestions the NAM countries presented a memorandum on 17th August, 1966 on the question of CTBT.⁴⁰

INDIAN OBJECTION

On 1 March, 1967 a number of prominent Indian intellectuals issued a joint statement demanding that the Government of India should not sign the treaty proposed by the two super powers.⁴¹ "By signing this treaty" they said "India would further severely limit the number of their options without any countervailing credible security whatsoever".

The official view of the government was made known only after March 27 when M.C. Chagla in a statement made in the Parliament stated that "The government shares with the international community the anxiety arising from the proliferation of nuclear weapons.

40. ENDC/P.V., 371, 17 August, 1966.

41. Signatories included: S. C., Poplai Raj Krishna, Sisir Gupta, and V.P. Dutt, Hindustan Times, (New Delhi, 2nd March, 1967).

They favour an early agreement on such a treaty and will be willing to sign one which fulfills the basic principles laid down by the United Nations". He further stated: "They are of the view that any such treaty should be a significant step towards general and complete (particularly nuclear) disarmament and ^{as} such meet the point of view of both nuclear weapons and non-nuclear weapon powers. A NPT should not be discriminatory or an unequal treaty. It is also the view of the government of India that the non-proliferation treaty should be such as not to impede this growth of nuclear science and technology for peaceful purposes in the developing countries; where the need for such development is great.... So far as India is concerned, apart from its anxiety to see the conclusion of a non-proliferation treaty as a step towards the achievement of general and complete disarmament, and more particularly nuclear disarmament. India has special problem of security against nuclear attack or nuclear black mail. This aspect which hardly needs elaboration must necessarily be taken into full account before our final attitude to a non-proliferation treaty is determined".⁴²

42. Foreign Affairs Record, (New Delhi), Vol. XIII, No. 3, March, 1967, pp. 17-18.

M. A. Hussain told the conference on February 27, 1968 that the NPT text did not need some of the more fundamental and basic requirements of an acceptable treaty and it did not incorporate many of the important ideas and suggestions put forward by a number of delegations.⁴³

Proliferation had become real by the time the NPT entered into force on March 5, 1970. The USA and many other countries had become alarmed at the spread of nuclear technology and took the view that proliferation increased the risk of a nuclear holocaust, but could think of no way of ending it which did not involve opening up existent nuclear arsenals to inspection and verification. The USSR was mainly concerned about the installation of nuclear weapons in West Germany as it considered that this particular aspect of the NATO was of direct threat to its own security. Both the superpowers, and many others besides, were also becoming conscious of the need to develop nuclear energy for economic reasons.

Faced with a widespread desire for more and more use of nuclear energy for civilian use, the NPT made a clumsy compromise. It was clearly impossible to withhold knowledge from a country on how to use

43. ENDC/P.V., 270, 27 February, 1968.

nuclear technology for military purposes, and yet allow that country to acquire nuclear technology for civilian purposes. The NPT compromise suggested (Article IV of the Treaty) that then Nuclear powers should supply the non-nuclear ones with all the benefits of their technology and achievement for peaceful use, and simultaneously spoke of the unalienable right of 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". These two Articles strictly ban the export and import of the national and knowledge which might help produce nuclear weapons.

The authors of the NPT soon realised that the Treaty provided no effective safeguards against nuclear attacks or intimidations, that it could never be effective since France and China - both the permanent members of the Security Council - had declined to sign it, and that it discriminated openly and widely in favour of nuclear powers.

Aware of these difficulties and deficiencies, the security council passed a resolution in 1968 which was meant to ensure that any member to the Treaty, if being non-nuclear, became victim to the nuclear

aggression or blackmail, it could depend on the nuclear powers to protect and defend it. France said that it did not think that the resolution provided adequate security to non-nuclear states and therefore abstained from voting, and China was not even properly represented in 1968. Moreover, the security council's resolution was of little practical use as any action by a nuclear power wishing to protect a non-nuclear state against nuclear aggression had to be in accordance with the Charter; in other words, such action was subject to veto or unilateral determination by a nuclear state whether aggression had taken place. In either case, there was no assurance that any protection would be forthcoming.

India has repeatedly made it clear that the basic approach to non-proliferation as embodied in the Treaty is indefensible; that the NPT encourages rather than discourages proliferation and that all its main provisions are either discriminatory or ineffectual. The Indian government pushed the idea of a ban on nuclear weapons long before it became fashionable among the great powers as a first step in disarmament.⁴⁴ India has emphatically and

44. Beaton, Leonard and Madox, John, The Spread of Nuclear Weapons, (W. & J. Mackay & Co. Ltd., England, 1962), p. 36.

consistently maintained that neither general and comprehensive nuclear disarmament can be achieved unless all nuclear powers give up testing, destroy their stockpiles of nuclear weapons and disband their delivery systems. It will then, and only then, be possible to control and regulate peaceful explosion and make the safeguards universal and effective.

Apart from these general objection to the NPT, India also has great reservations on some main features of the Treaty on grounds of principle or technical difficulties or political compulsion. Hussain pointed out that Article I and II "do not prevent the deployment of nuclear weapons on the territories of non-nuclear-weapon states, nor do they prevent the training in the use of nuclear weapons of the armed personnel belonging to the non-nuclear weapon states".⁴⁵ He pointed out that Article I did not prohibit one nuclear state from assisting another nuclear weapon state which had not yet reached the same degree of sophistication in the development of nuclear weapon technology by providing technological aid.

Hussain stated, "while India is fully in favour of the non-proliferation of the nuclear weapons, it

45. ENDC/P.V., 270, 27 February 1968.

is equally in favour of the proliferation of nuclear technology for peaceful purposes".⁴⁶

Again, Article III implies that nuclear states are free of safeguards relating to peaceful nuclear activities. Hussain told the conference on February 27, 1968: "

"There is yet another feature which cause concern, and that relates to safeguards, provided in Article III, which apply only to non-nuclear weapon states, making the obligation entirely one-sided. The Indian government has been consistently of the view that the safeguards should be universally applicable and be based on objective and non-discriminatory criteria."²⁴

Much has been said in the NPT about peaceful nuclear benefits and assistance from nuclear to non-nuclear states. In practice, however, very little has been transferred from one side to other. Even on such matters as withdrawal from the NPT, some controversy has been raised; Article X of the NPT provides that a party can withdraw from it if it decides that "extraordinary events, related to the subject matter of the Treaty, have jeopardised the supreme

46. Ibid.

47. Ibid.

interest of its country". Should such a withdrawal take place, would the country concerned be still "entitled to protection" provided in the Security Council resolution?

As early as 1960, it was clear that through advances in technology, nuclear reactors produce not only power but plutonium - a fissionable material that can be separated by a chemical process and used in the manufacture of nuclear weapons. Yet, the NPT does not provide any safeguards against such a process - an omission much criticised by India. Many otherwise hostile commentators see some substance in the Indian argument on this question. The NPT is to be welcomed in the sense that almost any agreement between the USA and the USSR is to be welcomed, but that is hardly a reason for nonaligned India to be a party to it.

When India exploded a nuclear device in 1974, all the bitterness and anger on its refusal to sign the NPT surfaced dramatically; in the UN repeated criticism was heard, and outside several bilateral measures were threatened or actually taken. But the Indian government stoutly defended its opposition to the NPT, stressed that all nuclear materials obtained by India were subject to International Atomic Energy Authority (IAEA) safeguards, none of which had been considered violated by

the organisation, that the loopholes in the NPT and related documents were not of India's making or seeking and were indeed not infrequently included against Indian pleas and protests. India reiterated its conviction that the total abolition of everything nuclear in the arsenals of the nuclear powers was the only road to a safer and better world, and that the avoidance of this issue could create only more difficulties in the future. With several important countries (e.g. Brazil) refusing to adhere to the NPT the Treaty's future is indeed gloomy; even Japan took time- to rectify it in 1976. Whether the main defect of the treaty is its inherent discrimination or whether it was never meant seriously to prevent proliferation, the NPT review conference in 1975 showed that no major improvements which could meet the basic Indian objections were to be expected.

India attached much significance to the French attitude both to the Treaty and to the Security Council Resolution of 1968, not merely because of what many Indians considered as a moderate French approach to international politics (e.g. French possessions in India) but because India shared the French conviction that the treaty would not achieve its objective. When France stated that it would adhere by NPT provisions without signing the Treaty, the Indians interpreted such a statement

as nothing more than France's avowal of solidarity with the NATO.

To sum up, India was critical of the NPT on the following grounds:

- (i) The treaty was inconsistent with the General Assembly Resolution 2028(XX). It was discriminatory and it ignored equal and mutual obligations between the nuclear and non-nuclear states.
- (ii) The treaty ran contrary to the General Assembly Resolution 2028 (XX) as there was no linkage between the treaty and other measures of disarmament.
- (iii) All the nuclear weapons powers were not associated with the ^{signing} ~~training~~ of the treaty. The Peoples' Republic of China was absent. The obligations of the treaty would be in no way binding on her.
- (iv) The security clauses in the treaty proposed by the three nuclear powers ran contrary to the spirit of the U.N. Charter because in respect of the maintenance of international peace and security the Charter did not discriminate between those states which have subscribed to any treaty and those states which have not.

(b) On the question of control and safeguards, the treaty was not very clear and its scope was not defined. Safeguards should be universal in nature and not discriminatory. The safeguards were only for non-nuclear powers.

K. Subramaniam said, "The Indian objection was mainly against the unequal nature of the treaty and misuse of international public opinion to subvert a policy of vertical proliferation by a few powers. In India's view this was not a non-proliferation treaty but a measure designed to disarm the unnamed."⁴⁸

48. Subramaniam, K., Indian Attitudes Towards the NPT: Nuclear Proliferation Problems, (Stockholm, 1974), p. 267.

(d) ATTITUDE TO NUCLEAR TEST
(Pokharan: 1974)

Military reasons are not essential for making the bomb, despite the capacity to make it. Why should we then make the bomb? For prestige!! For political leverage? Not necessarily. The bomb is crucial hardware in a new technology called Nuclear Explosive Engineering. Whoever possesses it will also possess an important technological tool.⁴⁹ Its development by a country may pave the way for bridging the technological gap, for it offers a definite tool for economic "leap frogging".⁵⁰ The Peaceful Nuclear Explosion (PNE) can be used for industrial and engineering purposes which can yield benefits of incalculable importance, especially to the developing countries.

From mid 1950s onward, the United States had started evincing keen interest to study seriously the possibilities of peaceful applications of nuclear explosives. The efforts to ascertain ways of harnessing 'the force available in nuclear explosives, to help conquer nature and obtain more of her treasure'⁵¹ resulted

49. Seshagiri, N., The Bomb! Fallout of India's Nuclear Explosion, (Vikas Publishing House, New Delhi, 1975), p. 51.

50. Ibid., pp. 52-60.

51. Willrich, Mason, Global Politics of Nuclear Energy, (New York, 1971), p. 145.

in the adoption of 'Plowshare'⁵² in the United States.

The Soviet Union, after its nuclear explosion in 1949, has also started exploring the possibility of using nuclear explosives for peaceful purposes. On 10 November 1949 the Soviet representative, Andrei Vyshinky claimed in the United Nations that atomic energy "was being used in the Soviet Union for purposes of its own domestic economy, blowing up mountains, changing the course of rivers - etc."⁵³

However, "Plowshare" had a generally hostile reception at the second United Nations conference on Peaceful Uses of Atomic Energy in 1958. There was, of course no apparent opposition at the third conference

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52. The term was adopted to denote research and development efforts aimed at the use of nuclear explosives for civil application. It broadly refers to programmes concerning civil uses of nuclear explosives in America and other countries. See Johnson, G.W., and Higgins, G.H. Engineering Applications of Nuclear Explosives: Project Plowshare, in Peaceful Uses of Atomic Energy: Proceedings of the Third International Conference, Geneva, 31 August - 9 September 1964 (United Nations Pub., New York, 1966), Vol, 15, p. 366.
53. Year Book of the United Nations, 21 September 1948 to 31 December 1949, p. 359. Also see Kramish, Arnold. Atomic Energy in the Soviet Union, (California, USA 1959), p.133.

in 1964 where scientists G.W. Johnson and G.H. Higgins of Lawrence Radiation Laboratory, Livermore, California opined:

As a consequence of experience gained in design and test of nuclear explosive over the past 20 years and in view of the more recent assessment of potential engineering and scientific applications, there is no doubt that many useful projects can be planned for accomplishment in the near future.⁵⁴ Thus the industrial and scientific potentials of the PNE attracted various countries, mostly the developing ones like, India, Egypt, Brazil, Australia, Romania and many others to harness this potential for their economic development. Australia expressed her keen interest in the use of nuclear explosives to excavate harbours on her west coast.⁵⁵

One of the reasons for opposition to the NPT by developing countries was the hope raised by the potential of new technology of peaceful nuclear explosions. India refused to subscribe to the treaty on the ground that by denying even the peaceful nuclear explosive technology through the NPT, the nuclear weapon states were discriminating against the non-nuclear weapon countries.⁵⁶

54. Johnson and Higgins, n. 52, p. 364.

55. Willrich, n. 51, p. 156.

56. Seshagiri, n. 49, pp. 55-56.

India's pursuit of nuclear energy for peaceful purposes started with the establishment of Atomic Energy Commission on August 10, 1948. Dr. Bhaba, addressing the Eighth Conference of IAEA on 17 September 1964, said that there was no reason why the benefits of using atomic explosions in civil engineering works should be denied to mankind so long as such explosions were subject to international supervision.⁵⁷ While broadcasting over All India Radio on UN Day, 24 October 1964, he again alluded to the potentialities of PNEs for economic benefits.⁵⁸ Prime Minister Lal Bhadr Shastri hoped that the peaceful nuclear explosion technology would benefit the country and the world as a whole.⁵⁹

Despite Chinese attack, pressures on Shastri government consequent to the Chinese nuclear test, the failure of international community to ensure the security of non-nuclear weapon states against a nuclear threat and the discriminating NPT, India stuck to her perspective of using nuclear energy for peaceful purposes as envisioned by Jawaharlal Nehru - the architect of the nuclear policy of India. Mrs. Indira Gandhi stated at Lusaka Conference held on 8-10 September 1970:

57. IAEA Documents, GC (VIII) No. 88, pp. 22-25.

58. Jain J.P., Nuclear India, Vol. II, (Radiant Pub. Delhi, 1974), p. 159.

59. Lok Sabha Debates, Series 3, Vol. 35, no. 10, 27 November 1964, Col. 2287:

"The conference is aware of the tremendous contribution which technology of the peaceful uses of nuclear energy, including PNE, can make to the economy of developing world. It is of the opinion that the benefits of this technology should be available to all states without any discrimination".⁶⁰

In accordance with the rationale of its nuclear policy, India decided to go ahead with nuclear test experiments to develop and refine the developing technology.

INDIA'S FIRST NUCLEAR TEST EXPLOSION, 18 MAY 1974:

In spite of the discouraging approach of both the super powers, enunciated in the NPT, India achieved a breakthrough in her endeavours where she successfully conducted her first peaceful nuclear experiment at Pokhran in Rajasthan on 18 May 1974.

It was an underground explosion, a spin-off of India's peaceful nuclear programme.⁶¹ It was part of the efforts to find ways of using underground explosions for constructive purposes.⁶² A notable feature of the explosion was that India was the first country to explode a nuclear device underground in its inaugural detonation.

60. Foreign Affairs Reports (New Delhi), Vol. 19, nos. 9-10-11, September, October November, 1970, p. 108.

61. Kaul, Ravi, India's Nuclear Spin-off (Chankaya Pub., Allahabad, 1974), p. 66.

62. Department of Atomic Energy, Government of India, Annual Report 1974-75, pp. 31-32.

The other five nuclear powers could do it after three to ten years of their first explosion.⁶³ India's Foreign Minister Swarn Singh said that the present experiment was important because our indigenous resources of energy for the benefits of our people through our own efforts.⁶⁴ The Indian explosion had proved that "at low cost one can carry out a PNE which is fully contained."⁶⁵ Its importance may be judged from a wider perspective also. It was part of the atomic energy programme in India which was designed to act as a spring board for modernising its scientific effort.⁶⁶ The "clean - character" of the explosion, as claimed by the Atomic Energy Commission, is even more significant, for it may provide a breakthrough in using PNEs for various purposes without fear of radio-active contamination.

The Indian Explosion had far reaching effects. The strategic impact really depends not so much on India's intentions, but on the perception of India's capabilities and intentions harboured by other countries, especially our neighbours.⁶⁷

63. Seshagiri, no. 43, pp. 5-6.

64. Hindustan Times, (New Delhi), 28 May 1974. Also in Economic Times(Bombay), 28 May 1974.

65. Raman, R., "Development of Nuclear Energy in India", Weekly Round Table, Vol. 3, Nos. 23 & 24, 1974, p.21.

66. Ibid.

67. Sawhny, Rathy, "Indian Nuclear Explosion: Strategic implications", Weekly Round Table, July 21, 1974, New Delhi, p.5.

The peaceful character of the explosion was accepted by a large number of countries, more so by the developing countries. It was acknowledged as a feat of scientific success. The Chairman of the French Atomic Energy Commission congratulated Indian scientists on their successful test.⁶⁸ The Soviet news media stressed the fact that the explosion was carried out to gain scientific knowledge for advancing the peaceful uses of nuclear energy.⁶⁹ The People's Republic of China withheld the news for forty-eight hours. Then the New China News Agency put out a factual two paragraph announcement of the explosion without comment.⁷⁰ The other two nuclear weapon powers - the United Kingdom and the United States - viewed the explosion in the context of non-proliferation of nuclear weapons.⁷¹ However, "The non-aligned and the developing countries have said little in public, but privately appear to take some pride in the Indian test, demonstrating that even a poor developing country can master nuclear technology."⁷²

68. Patriot, (New Delhi), 24th May 1974.

69. Hindustan Times, (New Delhi), 19th May 1974.

70. Ibid., 20 May 1974.

71. CCD/P.V. 637, 21 May 1974, p.19 and CCP/P.V. 638, 23 May 1974, p. 20.

72. Epstein, William, "Nuclear Proliferation in the Third World", Journal of International Affairs (New York), Vol. 29, no. 2, Fall 1975, pp. 186-7.

As for neighbours, Nepal as a part to the NPT, expressed its opposition to all nuclear tests, but its Foreign Ministry added in a statement on 20 May 1974 that it saw no reason to disbelieve Mrs. Gandhi's assurance that India was committed to using nuclear energy for peaceful purposes. There was immediately no official comment from Bangladesh, but its Foreign Minister, Dr. Kamal Hussain, recalled the assurance offered by Indian leaders in urging Pakistan not to make an issue of the Indian test at the Islamic conference at Kuala Lumpur in early June 1974. Sri Lanka also accepted Mrs. Gandhi's word as the national parliament was told by the Deputy Foreign Minister Lakshman Jayakody on 6 June 1974 Bhutan's views were made public by her ambassador to the United Nations only on 11 October 1974 when he expressed appreciation of Indian assurances. Prime Minister of Maldives, Ahmad Zaki, said on 12 January 1975 in a speech welcoming the Indian Prime Minister Mrs. Gandhi to his country that India deserved sincere congratulations on making a breakthrough in nuclear technology.⁷³

Shah of Iran viewed the explosion as peaceful.⁷⁴

The Iranian press was appreciative of the Indian feat

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73. Mukerjee, Dilip, "India's Nuclear Test and Pakistan", India Quarterly, (New Delhi), Vol. XXX, no. 4, October-December 1974, p. 267.
74. The Tribune (Chandigarh), 28 September 1974; "Indo-Iranian nuclear Co-operation may be on the anvil in Hindustan Times, (New Delhi), 21 December 1975.

reflecting the Shah's pragmatic view on the subject. The test can prove a great blessing for the developing countries for the Iranian oil revenues can be used in the development of the Agro-Asian world.⁷⁵

President Peron of Argentina felicitated India for her nuclear test for peaceful purposes. Senegalese President Leopold expressed his admiration for India's scientific achievement as demonstrated by the explosion.⁷⁶

The Lebanese daily Al Chhab expressed its approval of India's entry into the elite nuclear club and rejected the charges by the "imperialise press" which was trying to see a threat to Pakistan in the Indian nuclear test.⁷⁷ Kenya hoped that India's test "will not attract the great powers like flies".⁷⁸

Thus, whereas the developing nations, by and large, expressed their joy over the scientific technological achievement of India, some of the countries especially those advanced in nuclear science did not seem to be pleased with the Indian success.

The case of Canada is of particular significance because of her association with the Indian nuclear

75. Kaul, n. 33, p. 45.

76. Patriot, (New Delhi), 27 May 1974.

77. Kaul, n. 14, p. 46.

78. Ibid., p. 47.

programme since 1956 when it entered into an agreement with India to participate in the Indian efforts to develop nuclear science and technology to help this country to seek a long-range strategy for solving the problems of age-old poverty and backwardness. India's explosion was an extension of this policy.

But, the Canadian government refused to accept this as such and viewed it entirely from the military angle. It suspended all aid to the Indian atomic energy programme as an expression of her strong displeasure of India's explosion of a nuclear device.

One of the major charges levelled by the United States and other western countries against India was that she had been diverting her scarce resources to prestige projects such as a nuclear detonation when she should have been utilising them to feed her poor and clothe her destitute.⁷⁹ Canadian Prime Minister Pierre Trudeau was appointed ^{led} at the Indian test explosion and said that India spent money and technology on a nuclear bomb when her people were starving.⁸⁰

79. National Herald, (New Delhi), 21 September 1974.

80. News Review on Science and Technology, Institute of Defence Studies, and Analysis, New Delhi), June 1976, p. 278.

The New York Times in its editorial stated that "India should not have squandered away its resources on nuclear testing when it was facing great poverty."⁸¹ The Washington Post in a cartoon depicted India as a Fakir asking for aid from the West.⁸² The Times of London also criticized India's nuclear explosion and stressed that India should spend its money to tide over her domestic problems.⁸³

Pakistan evoked article I in the Preamble of the Nuclear Test Ban Treaty, 1963. On 16th July 1974, in the Committee on Disarmament Pakistan argued that India's explosion had spread radioactive debris over the territory of Pakistan. This conclusion was drawn after a careful review conducted by Pakistan Atomic Energy Commission.⁸⁴

Japanese delegate maintained that the nuclear test of India was conducted for peaceful purposes. However, he was of the opinion that there is no distinction between a nuclear test for peaceful purposes and for nuclear weapons and, therefore, such explosion would be in contradiction to the international efforts and world opinion on protecting the proliferation of nuclear weapons.⁸⁵ The American representative spoke against

81. New York Times, 20th May, 1974.

82. News Week, (New York), 3rd June, 1974, p. 11.

83. The Times of London, 20th May, 1974.

84. C.C.D./P.V. 643, 16th July, 1974, p. 7.

85. C.C.D./P.V. 637, 21st May, 1974, p. 18.

nuclear proliferation as "it would have an adverse impact on world stability".⁸⁶ The Netherland's government stated that nuclear explosion in Rajasthan represents a serious set-back at attempts to prove out the spread of nuclear weapons and the ban on nuclear tests. He also warned that the United circle of nuclear weapons powers had been broken with the Indian explosion.

Pakistan vehemently criticised the Indian test explosion. It blamed India for creating new situation for Pakistan. It further stated that the NPT has been demolished. Pakistan's Foreign Secretary Agha Shahi Stated that "the barriers have been breached. The efforts of the international community to prevent further spread of nuclear weapons have received a crippling blow."⁸⁷ The Pakistani delegate stated that the explosion had brought the countries of South Asian Sub-continent to a tragedy and disaster. It reversed the process of detente and frustrated all hopes in the direction of durable peace in the region. It may be remembered that India's opposition was primarily based on the ground that explosion was violation of the NPT while India was oppsed to this treaty and called it an "unequal Treaty".

86. Ibid., p. 19.

87. C.C.D./P.V., 638, 23rd May, 1974, p. 30.

Dr. Sheshagiri, a scientist of the Tata Institute of Fundamental Research and Technical Director in Electronics Commission carried out a benefit-cost analysis of nuclear explosion at the request of Dr. Vikram Sarabhai, Chairman, Atomic Energy Commission of India. He concluded that the explosion was justified. India was in great need of employing nuclear explosion for its economic development in the field of engineering, mining, construction of harbours and railways.

CHAPTER - 3

POLICY OF NUCLEAR OPTION

Chapter 3

POLICY OF NUCLEAR OPTION

(a) 1974-77: THE STATEMENT RATIONALE BEHIND POLICY OF AMBIGUITY PERSUED BY MRS. GANDHI:

India became the first country to detonate a nuclear test by its indigineous means and sixth of having nuclear technology on 18th May 1974. Though India under the leadership of Mrs. Gandhi assured the world that it would not be used for evil purposes, but the whole world took it in their subjective perception.¹ Before wining to the issue of PNS let us go into the details of Indira Gandhi's nuclear policy since 1966, the year she came to power.

For a while, prime Minister Indira Gandhi's administration continued the interest of the preceding governments in obtaining a nuclear shield for India. The Gandhi administration, however, discarded nuclear assurances through the U.N. Instead, New Delhi approached the two superpowers directly to secure a guarantee that would involve an reprisal if deterrence failed. This endeavour, however, encountered objections from two superpowers who declined to meet India's conditions. The credibility a joint nuclear guarantee by the superpowers was later openly questioned by Mrs. Indira Gandhi, when she informed the

1. Ojha, G.P., Mrs. Gandhi's Foreign Policy Choice. (Mrinal Books, Meerut Cantt., 1982) pp. 131-32.

Lok Sabha on June 17, 1967: "In the final analysis the effectiveness of a nuclear guarantee will depend upon the vital interests of the given and not upon the spirit in which the protected accept it".²

At this point India's quest for a nuclear guarantee was hushed to the background and replaced for a while by a moral support for the elimination of the nuclear weapons and their means of delivery through a comprehensive non-proliferation treaty.

The movement away from the search for specific and public superpower nuclear guarantees by the Gandhi government was the direct result of a number of trends operative within and outside India simultaneously. These were :

- The fear of China's advancement in nuclear technology and missile development;
- The rising pride in India's nuclear Energy program and its potentialities;
- The disenchantment with UN and foreign nuclear support to India's national interests.
- The change in the India's domestic scene in the wake of the fourth general election of

2. Asian Recorder, (New Delhi), 1967, p. 7823.

1967, which resulted in a decline in the power of the Congress party and a concomitant increase in the strength of the opposition.

India tried hard for an effective NPT that would ensure New Delhi's security against any chinese nuclear blackmail or attack. When the final draft was ready for signature, however, India refused to join it for four reasons:³

- ✓ - The imbalance of obligations between nuclear weapon states and non-nuclear weapon states;
- ✓ - The inadequacy of the security assurances of the NPT regime;
- ✓ - The distinction in the development of peaceful nuclear explosion; and
- ✓ - The discrimination in the application of international safeguards.

At this movement the pro-bomb sentiments was further intensified by the operation of three factors:

- ✓ - The Continuation of China's nuclear and thermo nuclear test explosion;

3. Alam, Mohammed B., India's Nuclear Policy, (Mittal Publications, Delhi, 1988), p. 26.

- The discriminatory nature of NPT; and
- The international pressure upon India to join it.

This decision fortified the hopes of the pro-bomb lobby, that at a future date the government would exercise its nuclear weapon option. We shall now examine India's nuclear option in the light of above mentioned development. There are at least two ways of looking at India's decision to stay away from the NPT system. On the one hand, the decision was motivated by an interest in the development of nuclear energy for peaceful applications. This decision was consistent with India's traditional stand of resisting external constraints upon the free development of its nuclear energy programme for civilian applications. In this sense the rejection of international safeguards is considered the precursor of the decision to stay away from the NPT. The military side of the decision is a secondary consequence of the decision, and not a motive for it.⁴

Alternatively, the decision was motivated by military considerations. In this context the decision was consistent with the implicit appreciation of the

4. Alam, No. 3, p. 27.

military and political value of nuclear technology, the roots of which go back to the 1950s and 1960s. This could also be traced to India's opposition to International safeguards, her preference for the retention of some nuclear force to the last stage of nuclear disarmament, and the loosening in its opposition to the acquisition of a major, deliberate political move on the part of the govt. to keep its Nuclear Weapon option open.⁵ This military orientation of the decision was reinforced with the Gandhi government's tendency to draw a closer linkage between atomic energy development for peaceful purposes and national security considerations.⁶ In a statement to the Rajya Sabha on March 5, 1970 the P.M. observed:

"The Indian Government believes that the present policy of developing our scientific and technological capability and expending our programme for the peaceful uses of atomic energy and space research is in the best overall interests of the nation. In this matter as in others the government keeps its policy under constant review taking into account the needs of our national defense and security".⁷



5. Subrahmanyam, K., "Indira Gandhi's Quest for Security", in Damodar an, A.K., and Bajpai, U.S., ed., "Indian Foreign Policy: The Indira Ganchi Years". (Radiant Publishers, New Delhi, 1990), pp. 70-71.

6. Ojha, N. 1, p. 133.

7. Nuclear India, (Bombay), Vol. 12, June 1974, p. 4.

Similar statement was also made by Foreign Minister Swaran Singh on May 10, 1966.⁸ Some of the government's activities in its nuclear energy programme between 1970-75 brought the country closer to the nuclear weapon option. Among these activities were: the launching of the Sarabhai ten - year plan for the development of atomic energy and space research; the establishment of the Department of Space and Electronics; and the testing of an underground nuclear explosive device.

According to a public opinion survey conducted in 1970 around 70% of India's politically attentive public were in favour of New Delhi, acquiring nuclear weapon. The call for a crash nuclear weapon programme also received support from the intellectual and academic circle and the parliament.⁹

Two major events in 1971 pushed India closer to the nuclear weapon option.¹⁰

— There was the Sino-American rapprochement, coupled with Peiking's admission to UN and its assumption of a permanent seat in the Security Council. The relaxation

8. For details see Lok Sabha debates 55 vols., 15712-34.

9. Monthly Public Opinion Survey, The Indian Institute of Public Opinion, December, 1971.

10. Kapoor, Ashok., India's Nuclear Option: Atomic Diplomacy and Decision Making. (Praeger Publications, New York, 1976), pp. 180-81.

in the tension between Washington and Peking Changed New Delhi's Policy making elites perception of the existence of an implicit or explicit American nuclear umbrella to protect India against any chinese nuclear threat.

— There was the Indo-Pakistan War which resulted in the emergence of Bangladesh as an independent state. India came out of the War as the dominant power in the sub-continent with the upsurge of new self-confidence. The War, however displayed India's vulnerability to possible threats from superior nuclear countries. This was manifested in the dispatch of a U.S. nuclear task force into the Bay of Bengal. In addition, chinese subjected India to vocal attacks and criticism.

Despite the various symptoms of flexibility in the govt.'s attitude on the question of nuclear weapons, the Gandhi administration didnot give any public hint in favour of an immediate nuclear weapon program development. Even as India was testing its first nuclear device, the government gave ample assurances that it had no intention whatso ever of producing nuclear weapons.¹¹ This type of assurances had already been made by Mrs. Indira Gandhi.

11. Nuclear India, (Bombay), Vol. 12, June 1974, p. 2.

Prime Minister Mrs. Indira Gandhi speaking in the Lok Sabha on March 5th, 1970 said, "Government believe that the present policy of developing our scientific and technological capability in expanding our programme for the peaceful uses of atomic energy and space research is in the best, overall interest of the nation. In this matter, as in other, government keep their policy under constant review taking into account the needs of our national defence and security".¹²

Earlier on April 24, 1968, she stated, "We think that nuclear weapons are no substitute for military preparedness involving the conventional weapons. The choice before us involves not only the question of making a few atom bombs, but of engaging in an arms race with sophisticated nuclear warheads and an effective missile delivery system. Such a course, I don't think would strengthen national security. We believe that to be militarily strong; it is necessary to be economically and industrially strong. Our programme for peaceful purposes is related to the real needs of our economy and would be effectively geared to this end".¹³

12. Amrit Bagar Patrika. (Calcutta), 19th May, 1974.

13. Ibid.

In an interview with a correspondent of newsweek in late May of 1974, P.M. Ganchi pointed out:

"There is a difference between Nuclear Weapon country and a non nuclear weapon country. We are not a nuclear weapon country, we do not have any bombs, we do not intend to use this knowledge, or this power for any other than peaceful purposes. Our neighbours need have no fear, we view the explosion as an extension of our work and research in keeping abreast with science and technology we have not viewed in in line of strengthening or creating fear or prestige or pride".¹⁴

Economic military arguments were used repeatedly by government officials to justify their distention from developing a crash nuclear weapon programme. In a statement on May 1966 Mrs. Indira Gandhi said in the Lok Sabha; "I don't think our policy is at all the negative our. I think it is a very positive policy. We are building up our atomic power, of course, we are using it for peaceful purposes, but in the meantime we are increasing our know-how and other competence. I myself fail to understand how our production of one bomb or two bombs will help us".¹⁵

14. News Week, (New York), June 3, 1974, p. 37.

15. Amrit Bagar Patrika (Calcutta), 19th May, 1974.

The gist of such statement is that while a crash nuclear weapon programme would be of a little military and political value, a balanced weapon programme consisting of thermo nuclear weapons and IRBM delievery system would be highly expensive and would take sometime before it operates. It became more clear when Mr. Jagjivan Ram, the then India's Defence Minister said in an interview in June 1972, "There is no use of becoming a punny little member of the nuclear club that will not impress anyone. We must acquire the capability and then we will have ample time to decide what to do with it. It will largely depend on what kind of world we will live in when we have achieved the capability".

(b) JANATA GOVERNMENT 1977-79;
Statement and rationale of deciding
on not going nuclear:

India's nuclear policy had undergone significant changes during the Janata Party's government which came to power in March 1977. However, these changes do not conform to a set pattern. Contradictions have become more glaring than ever before.

The day Mr. Desai assumed the Prime Minister office on 23rd March 1977 he declared that India would not conduct any further nuclear explosion.¹⁶ He went further criticising the policies of his predecessor, Mrs. Indira Gandhi who had given a green signal for the Indian scientists to detonate an underground nuclear device.¹⁷

Prime Minister Desai informed the Lok Sabha on July 27, 1977 that "The explosions for peaceful purposes were unnecessary", and that "the judgement of the other government in this were wrong". He conceded, however that he could not be insistent about this forever.

Mr. Desai adopted a moralist approach to India's nuclear policy, more akin to Nehru's view on World Disarmament, at the same time he denied to sign the NPT. Through abnegation of PNEs in the Indian context Desai

16. The Statesman, (New Delhi), 25 March 1977.

17. Times of India, (New Delhi), 19 May 1974.

attempted to convince the world at large about the evils of nuclear weapons and the need to get rid of them. However, because of his moral stance, the Indian refusal to sign the NPT and rejection of the blatantly discriminatory "safeguard" provisions of the NPT, remained a continuing feature of India's nuclear policy.

When the term Nuclear Policy is used it is important at the outset to distinguish bet the two aspects of it. One relates to the peaceful uses of nuclear energy in domain of power generation through reactor deployments and the other pertains to the possible exercise of the weapon option. Mr. Desai had accepted in unequivocal terms the need for the first and rejected the second. Because of this the confusion created by India's reiterations on PNEs was somewhat cleared.

However on 26th July 1978 Mr. Desai said in the Lok Sabha that he barred only "explosions" but was in favour of "blasts". According to him explosions was needed only for "political purposes" and did not enhance further knowledge. He went on to add that underground engineering projects like digging of

canals and dams, exploration of oil, extraction of low grade metal ores, require blasts and not explosions.¹⁹ One important requirement set up by him was that the radioactivity released by the blasts must be confined within the earth. By his criterion, then, the Pokhran explosion was unsatisfactory.²⁰

Whilst technically there is no real difference between a blast and an explosion, it became clear that at the policy level Mr. Desai may have been trying delicately to retract from his earlier blanket ban on all nuclear explosions. In the domestic context, the Janata government faced an opposition in both the house of Parliament particularly from the congress. Consequently the Janata government became vulnerable to criticism that the national interests were being influenced by external powers.

Mr. Desai's nuclear policy was one that seemed to have created a great deal of confusion within the country. But this repeated refusals to sign the NPT on the one hand, and rejection of Nuclear explosions, from time to time, had somewhat damped the enthusiasm of the scientific establishments within the country.²¹

19. The Statesman, (New Delhi) 27 July, 1978.

20. Ibid.

21. Hindustan Times (New Delhi), 16 December, 1978; Indian Express (New Delhi), 8 August, 1977.

Mr. Desai whilst rejecting nuclear explosions repeatedly said that full scope safeguards are discriminatory and does not apply equitably to all the nations.²²

Atal Bihari Bajpayee, the Janata Minister observed that "we have not given it up (nuclear explosion). All that the Prime Minister said was, that he was still to be convinced that explosions were necessary to develop research in the field of nuclear energy for peaceful purpose..... such explosions will, however, not take place in any hush manner. We will announce them to the world and tell them, well, look we are going to have these explosions, or implosions or blasts for peaceful purposes and if anybody wants to see them, he will be welcomed to do that. This is our position."²³

Vajpayee's statement in effect repudiated the need for India to pursue PNE from external sources under international supervision as envisioned by Article V of the NPT. Rather, India's own expertise is sought to be used and demonstrated to the external world, unlike what was the case with the

22. The Hindu, 12 January 1979.

23. The Blitz, (Bombay), 3 February, 1979.

Pokhran test. This is in essence the difference between the nuclear policy of the Janata Government and that of the Congress government. Although the role of PNEs remained in both the policies, the demarcation into explosions and blasts, is perhaps the characteristic policy adopted by Janata party. As far as the nuclear weapons are concerned, Vajpayee added that "India can not for all time to come foreclose its options and so far as the benefits of atomic weapons are concerned..... I belonged to the party which was for the bomb".²⁴

Prime Minister Desai when addressing the U.N's special session on Disarmament in New York on 9 June, 1978 suggested four steps towards Nuclear Disarmament that all Nuclear Powers must comply with, namely:

- (a) a declaration that utilization of nuclear technology for military purposes including research in weapon technology must be outlawed;
- (b) qualitative and quantitative limitations on nuclear armaments and immediate freezing of present stockpiles under international inspection;
- (c) formulation of a time bond programme not exceeding a decade - for gradual reduction of all stockpiles with a view to achieve total elimination of all nuclear weapons;

24. Ibid.

- (d) a comprehensive Test Ban Treaty through independence inspection. The safeguards should be universal and not impede nuclear research for peaceful purposes.

The above conditions in effect call upon the Nuclear weapon states to comply with the requirements of Article I of NPT. Mr. Desai had by setting forth these conditions sought to make the process of disarmament applicable to all. His nuclear policy, therefore, hinged on India setting an example by herself renouncing nuclear weapon so that moral persuasion would be the means to persuade other nations that possess nuclear weapons. Janata government's Nuclear Policy as set forth by Mr. Desai, therefore, rejected the conventional logic on the use of nuclear weapons as an investment of foreign policy. The latter has essentially been the trait of the superpowers, which have continued to fuel the nuclear arms race.

As far as the peaceful uses of nuclear explosion is concerned the Janata government had continued investment in the programmes of the IAEA. In spite of the hurdles that had been created by the US Nuclear Regulatory Commission (NRC) with regard to the supply of enriched uranium to Tarapur atomic Power Station (TAPS)

by linking it to Indian acceptance of full scope safeguards as per the provision of NPT, Mr. Desai had taken the view that it was morally wrong for the US to breach a contract it signed with India on 16th May, 1966. Specifically, Mr. Desai said that India would rather shut down TAPS or "improvise" using mixed oxide (MOX) fuel of plutonium and Uranium, manufactured indigenously than accept full scope safeguards.²⁵

The duality in Desai's government nuclear stand, of not producing nuclear weapons and banning underground nuclear tests while simultaneously resisting international pressure, measures and agreements that would foreclose India's nuclear weapons option, is partly in line with the India's traditional nuclear policy which refused to subject its nuclear installations to international measures and agreements which were perceived to be discriminatory. This duality can also be accounted for by a number of political developments that were operating inside India's domestic political scene at that time.

Elements of Janata coalition who occupied important portfolios in the cabinet had been effective

25. Indian Express, (New Delhi), 10 February, 1978.

advocates of an independent Indian nuclear deterrent.²⁶ Moreover, the nature of the ruling Janata Party, its composition and its parliamentary representation also worked to keep the country's nuclear option open, since 2/3rd of these Janata Party leaders were advocating for acquiring nuclear weapons in the past.

The presence of various political parties with different ideological orientations in the Janata coalition resulted in a power-struggle and finally the resignation of Prime Minister, Mr. Desai. He was replaced by Charan Singh, the leader of the major faction that broke away from the Janata Party. Although his term in office lasted only for six months, Mr. Singh started to review India's Nuclear policy. Unlike his predecessor, the new Prime Minister declared that he intended to keep India's Nuclear option open.²⁷ One month after his coming to power, Mr. Singh hinted in a speech given on India's Independence Day that India might be forced to manufacture nuclear weapon if Pakistan

26. These Ministers were Jagjivan Ram, Minister of Defence and the leader of the Congress for democracy faction; Atal Bihari Bajpayee, Minister of External Affairs and the leader of Jansangh Party; George Fernandes, Minister of Industry and the leader of the Socialist Party; and H.M. Patel, Minister of Finance and one of the leaders in the Congress (O) party.

27. The New York Times, July 28, 1979.

went ahead with its nuclear weapon development programme. We do not want to join the race to make an atom bomb", Mr. Singh said, he added, however that, "if Pakistan sticks to the plan to assemble a bomb we will perhaps have to reconsider the whole question".²⁸ On the same occasion, Mr. C. Subramanyam, Minister of Defense, referred indirectly to the same issue when he stated that, "In view of the developments in region there is a great need to develop our industrial research and development capacity particularly in the areas of production and defence".²⁹

Janata government's nuclear policy therefore, on the one hand rejected nuclear weapons and on the other hand encouraged civilian nuclear programmes and ensured that no discriminatory safeguards are imposed on them. In this way through rejection of NPT system, the avenue is left open for the future leadership to exercise the option at a later date if strategic need dictates in the long run.

28. The New York Times, August 16, 1979.

29. The New York Times, August 16, 1979.

(c) 1980-84 CONTINUATION OF PHASE (a):

Mrs. Gandhi returned to power in the aftermath of a massive mandate given to the Congress party in the 1980 elections. Her nuclear policy was influenced by the widespread reports about Pakistan's nuclear weapon programme. Second Mrs. Gandhi administration (1980-84) is characterized by the revision of old nuclear policy pursued by her during 1966-77. In her first statement about the country's nuclear programme, Mrs. Indira Gandhi told the Indian Parliament, on March 13, 1980 that although India was committed to the civilian application of the nuclear energy, it might manufacture nuclear weapons if they were deemed to be in the national interest. "We must have our eyes and ears open and be in touch with the latest technology. We should not be caught napping.... We remain committed to the use of atomic energy for peaceful purposes".³⁰ She declared, however, that her government would not hesitate to carry out nuclear experiments or whatever is necessary in the national interest. With repeated calls from the Janata opposition party, her own party and other elements in the pro-bomb lobby that the government should produce nuclear weapon to offset Pakistan's nuclear weapon programme Mrs. Indira Gandhi reiterated

30. Washington Post, March 14, 1980.

the position of her government that India would respond to such a challenge in an appropriate manner".³¹

In line with India's traditional policy of resisting external pressures to accept international inspections of all its nuclear facilities, the Gandhi government again refused to abide by the provisions of the NPT Act passed by the US Congress in 1978.³² The Minister of External Affairs, Mr. P.V. Narsimha Rao told the Lok Sabha in March 1980, that his country would not yield to American pressures.³³ A similar statement by Dr. H.N. Sethna, the Chairman of India's AEC said, "In the event that the United States does not honour the agreement I can assure that the Tarapur will not have to stop functioning due to the lack of the American fuels.... our efforts over the past years towards self-reliance have given us the confidence of rising to such a challenge".³⁴

India's nuclear policy was given a crystal shape after the repeated threats from Pakistani leaders. Its security environment was endangered by the interventionary activities of Pakistan assisted by China.

31. The New York Times, May 3, 1981.

32. The nuclear Non-Proliferation Act requires the recipients of American nuclear fuel to subject all of their nuclear installation to international safeguards and sign the NPT.

33. Washington Post, March 21, 1980.

34. India News, April 1980.

Pakistan's desire to have a bomb could be traced back to an important statement made by the late Zulfikar Ali Bhutto.

"We know that Israel and South Africa have nuclear capability, Jewish and Hindu civilizations have the capabilities. The communist power also possess it. Only the Islamic civilization was without it, but that position was about to change".³⁵

In all interview Dr. Abdul Qadir Khan, a leading Pakistani nuclear scientists, made three assertions:

- (a) Pakistan had broken the western countries' monopoly on the enrichment of the Uranium;
- (b) If in the interest of the country's defence the President of Pakistan was in extreme need and gave the team of the nuclear scientists an important mission", it would not disappoint the mission"; and
- (c) India had now lost its lead in nuclear technology and was far behind Pakistan.³⁶

The *Grandhi* government was quite sensitive to the Pakistani nuclear programme. In a statement in the Lok

35. Bhutto, Zulfikar Ali, If I am assassinated, (Vikas Publishers, New Delhi, 1979), p. 138.

36. Quoted in Alam, Mohammed B., India's Nuclear Policy (Mittal Publications, Delhi, 1988), p. 38.

Sabha, Mrs. Gandhi said, "My Government is aware of Pakistan's efforts to acquire Uranium enrichment capability to assemble a nuclear weapons. This does not, however, mean that Pakistan is ahead of India in atomic energy development. Indian scientists are keeping abreast all aspects of research and development connected with enrichment technology."³⁷

These statements suggest that the search for nuclear self-sufficiency, the further sophistication of the country's nuclear energy programme, the refusal to bind itself with international inspection measures and non-proliferation agreements and the possible resumption of the underground nuclear tests will furnish the main guidelines for the India's nuclear programme in the coming years. Further developments of India's nuclear energy programme to a level of nuclear self-reliance may overtime make the decision to acquire nuclear weapons simpler and less costly. It is conceivable that at sometime in the future the issue will not revolve around whether India should exercise its nuclear option but rather whether the increasing sophistication of the nuclear programme could lead to

37. The Statesman, (New Delhi), 23rd March, 1984.

anything else, particularly since the dividing line between the nuclear technology for peaceful and military applications is a very thin one. For instance, India's underground nuclear tests if resumed are bound to yield information that may contribute to a weapon programme regardless of the original intentions. Likewise, despite the ambiguous nature of India's space programme and the government's claim that the programme is conducted for civilian applications, India's launching of space satellites using its own indigenously developed rockets will in the long run have the military significance since it might eventuate the development of delivery and surveillance system.³⁸

38. In this context, Mr. Satish Dhawan the head of India's Space Research Organisation announced at the time of India's launching of a satellite in space, that the launching gave India the capacity to develop intermediate range ballistic missile. - Washington Post, July 1980;

Anand Report, 1979-80, Department of Space (Bangalore, 1980).

D. 1984-89 CONTINUATION OF PHASE (a) AND (c)

Mr. Rajiv Gandhi became the Prime Minister of India in December 1984. The sympathy wave, due to the brutal assassination of her mother, Mrs. Indira Gandhi, consoled him with massive majority of 4/5th strength in the Lok Sabha. India's nuclear policy under the Prime Ministership of Rajiv Gandhi remained the same as was followed by earlier Prime Ministers. It became clear when the then External Affairs Minister, Khurshid Alam Khan made a statement in the Lok Sabha.³⁹ This was reiterated by the then Minister of State for Science & Technology Mr. Shiv Raj Patil that there was no change in India's nuclear policy.⁴⁰

India reiterated its opposition to NPT. The spokesman of External Affairs Ministry said that there was no change and would not be there any change in India's Nuclear Policy including her principled stand on the NPT.⁴¹ He also denied any change on the international safeguards. But India made her willingness to sign NPT if Pakistan stops making nuclear weapons.⁴²

India kept on endeavouring to develop nuclear technology for peaceful purposes. Great Nuclear Plants

39. Indian Express, (New Delhi), August 9, 1985.

40. Nagpur Times, June 29, 1985.

41. Indian Express, (New Delhi) June 9, 1985, and Times of India (New Delhi), June 15, 1985 and Times of India (New Delhi), March 6, 1988.

42. Times of India (New Delhi), June 10, 1985.

such as DHRUVA and NARORA were established with indigenous technology.⁴³

In fact, India's nuclear policy was influenced by our Western neighbour i.e. Pakistan. The nuclear weapon designs of Pakistan are compelling India to keep its nuclear option open, reiterated Rajiv Gandhi.⁴⁴

India has been trying for global disarmament. Prime Minister Mr. Rajiv Gandhi called for a ban on nuclear armaments on the occasion of the 40th anniversary of Hiroshima Holocaust.⁴⁵ Similar to the earlier government's stands, Rajiv Gandhi made it clear that India would not accept any move to make the South Asia a nuclear free zone.⁴⁶ "Our policy is guided by global consideration and not by the so-called regional or bilateral considerations".⁴⁷

Whether India has a nuclear bomb is still debatable. But it is obvious that India has got the capability to make a nuclear bomb. The one hundred MW. DHRUVA REACTOR at Trombay which was established on 7th August 1985, is capable of producing enough weapons and

43. Hindustan Times, (New Delhi), November 2, 1985.

44. Indian Express, (New Delhi), August 9, 1985.

45. Hindustan Times, (New Delhi), August 7, 1985.

46. Indian Express, (New Delhi), October 20, 1986.

47. Statement made by the then External Affairs Minister, Times of India, (New Delhi), March 6, 1988.

can fuel up upto 30 bombs.⁴⁸ On the same line the then External Affairs Minister replied in the Lok Sabha that 'it would not be in national interest to disclose India's capability . It was proved in 1974. No one should underestimate our strength.'⁴⁹

India's nuclear policy depends upon Pakistan's intentions and helps given by the United States. The then External Affairs Minister Mr. Natwar Singh stated in Lok Sabha that India may be forced to make bomb. He also raised serious objection of the military aid of \$ 4.2 billion to Pakistan by USA.⁵⁰

Thus we see that India has been following a policy of ambivalence.⁵¹ This ambivalence and ambiguity obviously has become a corner stone of India's nuclear policy due to the clandestine efforts of Pakistan to go for nuclear.

48. Indian Express (New Delhi), August 10, 1985.

49. Times of India (New Delhi), August 9, 1985.

50. Times of India (New Delhi), May 4, 1987.

51. Indian Express (New Delhi), May 12, 1985.

CHAPTER - 4

DEBATE ON THE NUCLEAR OPTION

Chapter 4

DEBATE ON THE NUCLEAR OPTION

A. Discussion Over The Small Nuclear Forces:

What constitutes a 'nuclear capability'? When is, in fact, a nation considered small Nuclear Force?

It is generally accepted that a Small Nuclear Force (SNF) is something more than a nuclear explosive capability or the possession of one or two nuclear warheads. At minimum a SNF must be militarily usable instrument, whether it is declared to be such or not.¹ To be unilaterally usable, there are certain criteria that need to be met. ONE, the warheads must be known to work and packaged in a deliverable form. TWO, a delivery system capable of transporting these warheads and striking at the specified targets must exist. Finally, though certainly not last, a command and control system for the SNF is also a necessary feature.²

Nuclear military forces have been the hegemony of five major powers. For nearly twenty years, no other state has applied for admission, The next

1. Jones, Rodney W., ed, Small Nuclear Forces and U. S. Security Policy, (Toronto: Lexington Books, 1984), pp. 4-5.
2. Ameen, Fareed A., "Pakistan's Nuclear Capability", Strategic Digest, (New Delhi), Vol. XVI, No. 9, September 1986, p. 1248.

two or three decades probably will see new nuclear powers appear in developing regions, particularly in the Middle East and South Asia. The proliferation of small nuclear forces in such volatile areas would disturb the stability of the present strategic arrangement of the five major powers and jeopardize regional and global security. The threat of such SNF to each other could cause security relationship to deteriorate, alignments to become less predictable, and competition in arms acquisition to intensify. The resulting upheaval could eventually lead to global nuclear war.³

Before considering over the debate over SNFs it is essential to know the pressures encouraging a country to go nuclear. The five nuclear powers were also a Small Nuclear Force in the beginning. Two American strategic specialists Lewis A. Dunn and Herman Kahn, have listed as many as fourteen security, status or influence, bureaucratic and domestic factors encouraging a country to go nuclear.⁴ They identified eight types of events as 'triggers' activating considerations of the pressures for going nuclear. These are:

- Involvement in foreign crisis;
- Reduction in reliance credibility;

3. Rodney, no. 1, pp. 2-8.

4. Dunn, A. and Kahn, Herman, Pressures or Reasons for Proliferation, (New York, Houston Institute, 1976), pp. 233-86.

- Nuclearisation of other countries;
- Weakening or breakdown of international constraints;
- Domestic crisis
- Government of leadership change;
- Increased availability of necessary resources and inputs; and
- Changed perception and utility of nuclear weapons.⁵

Raju Thomas provocatively suggests a logical chain - the Soviet - American arms competition has stimulated China to respond to increasing Soviet strength with an expansion of its own nuclear capability; this growth in turn menaces India; India is thus in turn forced to keep open the option of developing

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5. It is clear that most of these triggers¹ did not apply to India in respect of the Pokhran explosion, Dunn and Kahn gave five reasons for India's nuclear explosion:
- (a) Deterrence of a nuclear rival (China);
 - (b) Buttressing the bargaining position;
 - (c) Quest for regional/international status/influence;
 - (d) Strengthening military, scientific/bureaucratic morale;
 - (e) Scientific and technological momentum. Ibid. pp. 235-86

nuclear weapons⁶. This in turn has an impact over Pakistan with its regional rivalry with India.⁷ The Indo-Pakistan rivalry is the least tractable international problem in South Asia and will play a major role in determining SNF futures.⁸

Even if we assume a stable three-way nuclear relationship among China - India and Pakistan similar to that among the United States - the Soviet Union and China, there remains the problem of further proliferation west of the sub continent. Among the imponderables in any appraisal of Iran's place in, or attitude towards a hypothetical nuclear situation in South Asia on the connection between overlapping security spheres, the Arab-Israeli conflict; the farthest west of these regional system embraces Iraq on its margins.⁹ In its turn is linked geographically and politically to the binary relationship between Iran and Iraq. The intersection between it and the Indo-Pak Situation is the third link in the chain.¹⁰

6. Thomas, Raju G. C., "Strategic consequences of nuclear proliferation in South-West Asia: India's perspective", Journal of Strategic Studies, (London) 8 (4); December 85, pp. 67-79.

7. Blau, Thomas, "Small Nuclear Forces in South Asia", in Rodney: no. 1, pp. 89-105.

8. Ibid, p. 92

9. Brenner, Michael, "The Strategic consequences of Nuclear proliferation in South Asia for Iran", Journal of Strategic Studies, (London), 8(4); December 1985, pp. 60-65.

10. Ibid.

To assess the implications and relationship between small nuclear forces and the bomb, it is necessary to postulate hypothetically that one or more exist. Yet a state's decision to declare a nuclear weapons capability or intent or to deploy a nuclear force cannot be specifically predicted. The policies of ambiguity adopted by Israel, India, South Africa and Pakistan suggest that such decisions can be held in abeyance for long periods of time.

Arnold Kramish projects the possible numbers of nuclear warheads in regional SNFs over the next two or three decades based on fissile material availability. He argues that SNFs probably would be based in most cases on nuclear material from dedicated facilities rather than what might be diverted from civilian nuclear energy facilities.¹¹ "It is obvious that it is simple and more reliable to produce plutonium for nuclear weapons in reactors especially intended for this purpose than to use atomic power station reactors".¹² The potential military capabilities and stockpiles in the threshold countries

11. Kramish, Arnold, "The Bombs of Balnibari", in Rodney W., n. 1., pp. 17-25.

12. Emelyanov, V.S., "Concerning the question of Atomic Power Energetics and the Proliferation of Nuclear Weapons", Proceedings of the 1976 Pugwash Conference, pp. 83-85.

leads to the possibility of advanced nuclear proliferation. (see Table I in Appendix). Any country that decides to acquire a SNF will have to obtain not only the nuclear warheads but also the means of delivery and systems for positive command and control over those warheads. Conceptually, it is often useful to think of nuclear proliferation as the process of moving rung to rung up a ladder of capabilities.¹³ It is true that certain technical sequences in nuclear development are nearly invariable. Conventional military delivery systems as well as civilian aerospace technologies that could support SNF deployment are already present in the region.¹⁴ A SNF candidate country would find that conventional military delivery systems designed with nuclear or dual use in mind are widely available from commercial sources or governmental sales. Although such systems are usually sold or transferred in a conventional mode, the recipient country may be able to modify or adapt them for nuclear use.¹⁵ In any case, the development of a SNF probably would not stop at a single technical plateau but rather would continue

13. Dunn, Lewis A. Controlling the Bomb: Nuclear Proliferation in the 1980s (New Haven: Yale University Press, 1982), pp. 138-139.

14. Rodney W., n. 1, pp. 37-57.

15. See Strategic Survey, (London: IISS, 1975), p. 38.

in a process of technical improvement.¹⁶

Not only are there several types of high-performance nuclear-capable aircraft systems present in this region now, but even more sophisticated aircraft are likely to be characteristic of air forces in this region in the next two decades (tables II & III). Dual-capable ballistic missiles systems are also spreading in the region, either from arms transfers or from indigenous development.

Longer-range SSMs are under development in Israel and India. The Israeli nuclear-capable Jericho SSM has a range in excess of 300 miles. A future generation of the Jericho is expected to extend the range upto at least 600 miles and has begun deploying nuclear warheads on the Jericho.¹⁷ India has already flight tested a space launcher, which, if used in a SSM mode, could lift a nuclear payload about 300 miles.¹⁸ India is also developing space launchers that would have the capacity, perhaps in the 1990s, to deliver nuclear

16. Rochlin, Gene I, "The Development and Deployment of Nuclear Weapons Systems in a Proliferating World", in King, John Kerry, ed., International Political Effects of The Spread of Nuclear Weapons (Washington D.C.: Government Printing office, 1979), pp. 1-25.

17. Rodney W., n. 1, pp. 37-47.

18. Aerospace Daily, 1 May 1985, pp. 46-47.

payloads about 2,000 miles, bringing major Chinese cities in range.¹⁹ Recent examples are in press accounts that Israel and Pakistan have acquired Krytrons (high-speed switches for nuclear explosive timing mechanism) from the United States.²⁰ Adding to suspicions about South African motives, US Congressman John Conyers claimed to have new evidence that South Africa has tested a nuclear weapon in the South Atlantic in 1979.²¹

The spread of nuclear weapons, reactionary regional chains developing into SNFs is hazardous both for regional and extra-regional security balance. It confronts both the United States and the USSR with new threats, not the least being the increased risk of regional conflict escalating it confrontation between the superpowers.²² Both the superpowers therefore,

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19. See the projections in Marwah, Onkar. "India's Nuclear and Space Programs. Intent and Policy", International Security (Cambridge) Vol. 2, no.2 (Fall 1977), pp. 96-121.
 20. Friedmann, Thomas L. "Israelis Deny Knowing of Export Ban for Device Usable in A-Bombs", New York Times, 18 May 1985, p.4.
 21. Toole, Thomas O', "New Data Seen as Sign of South Africa's A-Test", Washington Post, 22 May 1985, p. A-17.
 22. Potter, William C. "The Strategic Consequences of Nuclear Proliferation in South Asia: for the Soviet Union", Journal of Strategic Studies (London), 8 (4): December 85, pp. 40-46.

would appear to share strong although not identical interests in preventing further proliferation in South Asia. Although it will be difficult to translate this partial convergence of interest into concrete policy initiatives, the possibility for joint US-Soviet cooperation for non-proliferation in the region should be more carefully explored.²³ The regional MAD cannot be halted unless the total disarmament takes place.

23. Potter, William C., "US-Soviet Cooperation Measures for Non-Proliferation", in Rodney Jones, Cesare Merlini, Joseph Pilat and William C. Potter eds. The Nuclear Suppliers and Non-Proliferation (Lexington: M. A. Lexington Books, 1985), pp. 85-111.

(B) DISCUSSION OVER POLITICAL AND ECONOMIC CONSTRAINTS

The issue whether India should go nuclear or not is plagued by various political and economic considerations. This sub section of the chapter is an endeavour to indentify the role of these potential sources of influences in the Indian decision-making. It is important to note that from the late 1940's to the mid 1960s, India's nuclear policy making was essentially an elitist exercise. Between these decades (1940s - 1960s) some committees were convened by the Government but thier reports are still unpublished. All these reports will be discussed in the later part under the economic constraints.

In order to analyse the political constraints we propose to discuss four effective source of influence on the thinking of decision makers. This refers to:-

- (a) The role of elites;
- (b) Indian public opinion at the mass level;
- (c) the parties other than the ruling party (opposition); and
- (d) the influence of party politics (the ruling party).

THE ROLE OF ELITES:

Until 1964, there was little public debate on the nuclear issue. It was because of many reasons; such as:

- India's Gandhian tradition did not allow public thinking about nuclear weapons;
- India was committed to a diplomatic strategy of peace through nuclear disarmament; and
- there was no real opportunity to discuss the issue in a specific policy context.

After 1964, the NPT became a matter of intense public debate as a consequence of international debate. Secondly, a shift was noted in the societal attitude towards nuclear weapons after the publication of Bhabha's view in 1964. Before the Chinese test in 1964, he gave a glimpse of the intragovernmental debate. He made six points in a paper presented to the Twelveth Pugwash conference of Science and World Affairs held in India in January 27 - February 1, 1964. He made the following points:²⁴

- to achieve absolute deterrence it was essential to have nuclear weapons;
- with conventional weapons it was only possible to "acquire a position of relative deterrence";
- if a state was asked to renounce nuclear weapons, its security ought to be guaranteed by both major nuclear powers;

24. Bhabha, Homi, "Safeguards and the Dissenation of Military Power", Disarmament and Arms Control, 1964, pp. 433-40.

- one needed to distinguish between the short term effect (covering ten years) and the long term effects of the nuclear proliferation;
- in the next five to ten years, the expenditure involved in nuclear weapons production "would be small compared with the military budgets of many small industrialized countries"; and
- the relationship between foreign policy alignment and weapons use was noted.

The spectrum of societal attitude on the nuclear-security issues after 1964 fell into two categories:

- (a) Should India sign the NPT?
- (b) Were security guarantees from the superpowers credible and desirable in terms of India's security and diplomatic interests?

The first category was easy to identify, and the national consensus on this issue was also identifiable. The only Indian political party that urged India to sign the NPT and to accept a US-Soviet nuclear Umbrella was the pro-west, business-oriented Swatantra party.²⁵ The other political parties rejected security guarantees,

25. Masani M.R., The General Secretary of the Party in a speech on October 16, 1964, Lok Sabha Debate, Government of India, Pub., November 23, 1964; Columns 1238-40.

particularly U.S. guarantees, and refused to endorse the NPT. The Moscow Wing of India's communist party in December 1964 argued against the US Umbrella proposal. Yet it did not advocate an Indian nuclear weapons programme, because it did not feel that China was a real nuclear threat to India.²⁶ Likewise the Peiking wing of Indian Communist movement felt that China's nuclear capability was not meant against India, and the latter ought not to become dependent on imperialist guarantees.²⁷ Only the nationalistic Jan Sangh party as early as 1962, urged India's acquisition of nuclear weapons. It criticized the government for raising the false issue of economic costs in weapons production. Its position was rooted in a nationalist reaction against the behaviour of the superpowers and China.²⁸ Thus by and large, Indian elites - intellectual, bureaucratic, and military - seemed to reject NPT and superpowers guarantees.

Prior to the first Indian nuclear detonation of May 18, 1974, discussions about these questions in

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26. Shah, A.B., ed., India's Defense and Foreign Policies, (Manaktalas, Bombay, 1968), p. 166.
27. Couper F.E., "Indian Party Conflict on the Issue of Atomic Weapons", Journal of Developing Areas, January, 1969, p. 202.
28. Patil R.L.M., "India: Nuclear Weapons and International Politics", (National Publishing House, Delhi, 1969), p. 79.

the public were purely academic. However since the first test, such questions are infact being raised within and outside India. Even the Indian army seems to have acquired a taste for discussing nuclear weapons; although prior to the detonation senior army officers, including Field Marshal S. F. H. J. Manekshaw, argued that Nuclear weapons did not have a military use, and hence India did not need them.

The Indian intellectual view further can be divided into three categories:

One, those who advocate abstention in the use of force. This Gandhian - elite group favours intensified efforts for disarmament and does not treat military and nuclear power as valid policy instruments. It is to be noted here that since 1962 this group has not played a significant role because of its contrary world view.

Second, group can be named as Military Elite. This group, is, generally against an immediate nuclear weapon programme. This does not perceive any immediate threat from China and Pakistan. It is of the opinion that possession of nuclear weapons will not provide any security against threats from China and Pakistan that are conventional.²⁹ If ther is money to spare, it

29. Singh, Sampooran, India and the Nuclear Bomb, (S. Chand and Co. Ltd., New Delhi 1971), p. 107.

should be spent on improving India's conventional military strength.³⁰ It is clear that this group gives highest priority to conventional weapons as well as stresses upon the improvement in technological capability to manufacture nuclear system.³¹

Third group can be categorised as strategic - political-elite. This is of the view that India ought to help shape the balance of power in Asia by participating in the military balance.³² India should not rely on the west for stabilizing the Asian military balance.³³ India should go nuclear because it is a potential great power that should be able to participate in international agreement as an equal of other great power.³⁴ The question of nuclear weapons must be coordinated closely with India's foreign policy problems, and the nuclear issue should be used to help improve

30. Mirchandani, G. C., India's Nuclear Dilemma, (Popular Book Service, New Delhi, 1968), p. 100.

31. "India's Military Strategy", India Quarterly, (New Delhi), Jan-March 1967, p. 26.

32. Buchan, Alastair, A World of Nuclear Power?, (New York: American Assembly, 1966, p. 56.

33. Ibid., p. 62.

34. Deshingkar, D., in China Report, (New Delhi), May-June 1970, New Delhi, p. 33.

India's bargaining relations with the superpowers until nuclear weapons have some political-military utility.³⁵ India must participate in the nuclear game to break the trend toward superpower imperialism in world politics and to buy security against China as a byproduct.³⁶ India should go nuclear to develop its internal strength and to become independent of the big powers.³⁷ India needs to abandon non-alignment in favour of a working partnership in security matters among the free Asian powers.³⁸ India needs to avoid security guarantees because these are not reliable, to avoid an immediate nuclear weapon decision but to prepare for one immediately, and to improve India's decision-making machinery in security matters.³⁹

35. Kapur, Ashok, in World Today (London), September 1971.

36. Swamy Subramaniam, "India's Nuclear Strategy in the 1970s", Lecture at the University of California, May 26, 1969.

37. Dutt V.P., in Mishra K.P., ed., Studies in Indian Indian Foreign Policy, (Vikas Publications, New Delhi, 1969), p. 324.

38. Dutt, Som, "India and the Bomb", Adelphi Papers (London: IISS), November, 1966, p. 9.

39. Subramanyam, K., "A Strategy for India for a Credible Posture Against a Nuclear Adversary", IDSA Journal, (New Delhi), 1968, pp. 3 & 5.

PUBLIC OPINION

Generally speaking public opinion is supposed to influence policy making, but the precise nature of its influence is unclear. Because of low level of literacy, one does not expect the lay public in India to take an interest in foreign defense issues where the dominant issue is on economic survival. Nevertheless, Indian public opinion poles reveal considerable public interest in nuclear weapons. Several surveys based on random samples indicate that a majority of India's public favour a weapons program. Gerard Braunthal, an American researcher who conducted survey in India during February-March and May 1966 reports as follows:⁴⁰

"Indeed, 7 out of 10 believed that India should produce her own atomic weapons.... Those who answered positively argued that atomic weapons were needed for defence against China and Pakistan to withstand any blackmail and to maintain a balance of power, that national prestige would be enhanced, and that India no longer would need to rely on American and Russian nuclear umbrellas."

Those who opposed an Indian nuclear capability, including some pro-Moscow communists, argued that it ran counter to the nations' policy, that it was too

40. This survey was conducted after the Indo-Pakistan war of 1965.

expensive, or too destructive.⁴¹

Table No.IV (see Appendix) shows clearly that a sizeable majority of India's public in the major cities favoured atomic capability for India.

Thus we see that though public opinion (mass) is hidden and unclear but it has its bearing in the policy formulations.

THE ROLE OF OPPOSITION PARTIES:

Overall, the national Jan Sangh was the strongest voice in urging a nuclear weapon programme for India. It found support for its views from some sections in the Congress party and from some sections of Indian public opinion, but neither the Swatantra party nor the pro-Moscow or pro-Beiking wings of the communist movement in India supported the Jansangh".

The Jan Sangh's advocacy of a weapon program is consistent with its general policy of urging a reorientation in India's defense thinking. Its main premise is that Pakistan and China are India's natural enemies.⁴² It questions the "pseudo-pacifist

41. Braunthal, Gerard, "Attitude Survey in India", Public Opinion Quarterly, 33, no. 1, Spring 1969, p. 80.

42. Kishore M.A., "Jan Sangh and India's Foreign Policy", (Associated Publishing House, New Delhi, 1969), p. 32.

inhibitions" of Nehru's foreign policy.⁴³ As early as 1950s, this party warned the government about China's threat.⁴⁴ It accused the government of misleading the public about "neighbourly and friendly relations" with China in 1957, when the government knew in 1956 about Chinese territorial intrusions into the Aksai Chin area in Ladakh.⁴⁵ It emphasised a need for less talk and more defense preparations, arguing that it "is all right to talk of peace. But peace cannot come by asking for it..... Strength is needed to win peace as much as it is needed to win a war". It noted that China, the U.S. and the USSR all talk of peace but prepared for military action.⁴⁶

The Jan Sangh had taken a specific stand on China's nuclear programme on October 20, 1964, it welcomed President Lyndon John's offer of a security guarantee for non-nuclear weapons states but nevertheless emphasised India's need to have an independent atomic capability. It questioned the government's view that India's economy would not afford weapons program. Swatantra

43. Ibid., p. 32.

44. Jhangiani M. A., Jan Sangh and Swatantra, (Manaktalas Pub., Bombay, 1967), p. 59.

45. Ibid., p. 64.

46. Ibid., p. 69

party rejected the non-alignment and wanted India with Western alliance.

However, the impact of these parties on the government policies cannot be ruled out. They play a vital role in shaping the government policies.

THE RULING PARTY:

The views of the various Prime Ministers and different governments (national) has already been discussed in detail in Chapter-2. Still it is important to say that before 1962, Nehru was all in all in the formation of India's foreign policy. The confrontation with China undermined Nehru's China policy and his theory of peaceful co-existence. More importantly, it undermined the influence in government and in the Congress party.

The shift in the 1960s in the Nuclear policy is the consequence of the various factors. The debate on the nuclear weapon gained momentum in the late 1960s. Thus it is easy to demonstrate change in the government's thinking but it is highly problematic to say that this change occurred because of public opinion or interest groups pressures. The media function essentially as a transmission belt for shifting the public commitment away from the Gandhian philosophy.

ECONOMIC CONSTRAINTS

In no area of critical concern to the nation is public ignorance so great as in defence; in no sub-area, it is so great as in the economics of producing nuclear weapons. The co-existence of acute concern and colossal ignorance has been a national characteristic for the last two decades; even today the nation is on the horns of a dilemma, not knowing whether to go nuclear or otherwise.⁴⁷

Whether a country should make a bomb is a prerogative of the government in power but economic factor can not be ruled out. It is the cost factor which cripples the thinking of a particular government to have a bomb. The experts in the field are able to turn out ready-made figures about the cost of the bomb, depending upon whether one wants to prove that the bomb is the cheapest form of defence and it can be manufactured tomorrow, or that its costs are so exorbitant that the Indian economy will collapse before we can make a bomb.

There is no unanimity among the experts regarding the cost of a bomb. The estimates for a credible nuclear weapons programme vary from Jan Sangh's Rs. 750 crores⁴⁸

47. Singh, Sampooran, India and the Nuclear Bomb (Chand and Co., New Delhi, 1971), p. 133.

48. Swamy Subramanian, "Systems Analysis of Strategic Defence Needs", Economic and Political Weekly (Bombay), Vol. 4, No. 8, February 22, 1969, p. 401.

to something between Rs. 6,000 crores to Rs. 8,000 crores⁴⁹ by the Institute for Defence Studies and Analysis, New Delhi.

The cost of a new Prototype bomber with full equipment is equivalent to the combined cost of one year's salary for 250,000 teachers, 30 science faculties with one thousand students each, 75 fully equipped, 100 - bed hospitals.....⁵⁰ The Indian Parliamentary and Scientific Committee organised on this subject a seminar of scientists, economists, defence experts and members of Parliament on May 8-9, 1970 at New Delhi. The consensus of opinion in the seminar was that the cost of the nuclear weapon programme would be clearly within India's economic resources. For, from crushing the Indian economy, the nuclear programme, it was felt, would accelerate the growth of industry and technology.

BHABHA'S ESTIMATE

The cost of a ten-kiloton atomic bomb was estimated to be Rs. 17.5 Lakhs and that of a two-megaton bomb Rs. 30 lakh.⁵¹ According to Bhabha, atomic explosives were

49. Rama Rao, R., The Statesman, February 4, 1970; February 5, 1970; and February 6, 1970.

50. Seminar, (New Delhi), n.65, January 1965,

51. The Hindu, October 27, 1964 (reproduced by R.L.M. Patel, "India Nuclear weapons and International Politics", National; Delhi, 1969, Delhi, pp. 50 & 51.

LEONARD BEATON, ALASTAIR BUCHAN AND
JAMES SCHLESINGER'S ESTIMATES:

Table No. V (see Appendix) shows that the annual cost comes to be \$ 230 million or Rs. 172.5 crores over a ten-year period. India has already got the basic reactors and this might to that extent, lower the cost element, including the cost of fissile material productions.⁵²

Another view of the costs of a nuclear weapons programme has been expressed by Alastair Buchan, He asserted that India can build up a stock of 50 twenty-kiloton bombs with Rs. 24 crores.⁵³

James Schlesinger has challenged Beaton's estimate of the cost of a modest missile force with thermonuclear warheads at \$ 300 million per annum.⁵⁴ According to him it would be higher by roughly a factor of five. This estimate is more in accordance with the cost estimates of the French missile programme given in Judith Young's Adelphi Paper No. 38.⁵⁵

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52. Beaton, Leonard, Must the Bomb Spread? (Penguin Books, London, 1966, see also Buchan, Alastair A world of Nuclear Powers? (Printice-Hall, 1966), pp. 13-38.
53. Buchan, Alastair, "The Dilemma of India's Security", Survival, (London), Vol. VII, No.5, August 1965, p.204.
54. Schlesinger, James, "Nuclear Spread", Yale Review, Vol. LX VII, Autumn 1967 (refer V.Gilinsky, RAND Memo RM 5248-PR-45).
55. H.Young, Judith, "The French Strategic Missile Programme", Adelphi Paper No.38, (London), July 1967.

UNO'S ESTIMATE:

It is considered to be the most dependable estimate of costs by a study team of experts of 12 countries appointed by the U.N. Secretary General early in 1967. The experts included Dr. Vikram Sarabhai of India. In a unanimous report⁵⁶ the team dealt, among other things, with the economic implications of the acquisition and further development of nuclear weapons. The cost of different systems have been estimated as given below:

(i) Fissile Material:

Taking the cost of natural uranium to be Rs. 150 per kilogram the total cost of enriched uranium comes out to be Rs. 82,500 to Rs. 90,000 per kilogram U-235. About 25 Kg. of weapon-grade uranium will be required for the production of one nuclear warhead with a yield in the twenty kiloton range.

(ii) Designing, Manufacturing and Testing:

Published information on problems related to warhead assembly and testing is severely limited by military survey. According to a Swedish study, capital investments in a factory for assembling the warheads per year would be about Rs. 6 crore and annual operating costs about Rs. 75 lakhs. The cost of testing on twenty-kiloton device and of four such devices would be Rs. 9 crores and Rs. 11.3 crores respectively.

56. United Nations General Assembly Report, No.A/6858, October 10, 1967.

(iii) Summary of the Cost of Plutonium-based Warheads:

A moderate programme is assumed as ten plutonium based twenty-kiloton warheads per year over a period of ten years. The cost of such a production programme is given in Table VI (see Appendix) and comes out to be Rs. 141 crores for ten years.

(iv) Thermonuclear Warheads:

The cost of the French nuclear warhead programme, which included construction and operation of a diffusion plant for enriching Uranium-235 and the development and testing of Thermonuclear weapons are shown in Table VII (see Appendix).

(v) Delivery Vehicle:

In general, even a modest, indigenous delivery vehicle programme, including nuclear weapons, would entail expenditure of no less than Rs. 1,125 crores.

(vi) Costs of Nuclear Forces in Different Countries:

Actual annual costs of nuclear forces are shown in Table VIII (see Appendix). The costs are also given relative to the annual defence budgets and the gross national product (G.N.P.).

(vii) Modest Nuclear Capacity:

It may be assumed that a modest but significant nuclear armament is represented by a force of 30 to 50 jet bomber aircrafts (Canberra or B-57 type) together with 50 medium-range missiles of 3,000 kilometre range in soft emplacements and 100 plutonium warheads. The total estimated cost of such a system, deployed over 10 years, would be at least Rs. 1,260 crores to Rs. 126 crores per year. The break-down of cost is given in Table IX (see Appendix).

ESTIMATES BY SUBRAMANIAM SWAMY, RAMA RAO AND SETHI:

Swamy estimated the cost of 100 nuclear-tip per 1500 nautical missiles which is given in Table X (see Appendix).

Swamy suggested that the cost (Rs. 750 crores) of a nuclear programme be spread over a period of five years i.e. Rs. 150 crore per year. He regards the UN cost estimates of a nuclear force as inapplicable to the Indian situation.⁵⁷

Rama Rao estimates the cost of an Indian nuclear programme to be Rs. 6,000 crores to Rs. 8,000 crores.⁵⁸

57. The Hindustan Times, (New Delhi), March 11, 1970.

58. Rao, R. Rama, The Statesman, February, 4, 1970, February 5, 1970 and February 6, 1970.

His basic argument is that a balanced and viable nuclear force is unlikely to cost India much less than it costs France.

Sethi concluded that the cost over a period of seven years would be about Rs. 1700 crore or Rs. 250 crore per year.⁵⁹

Despite all these estimates U.N. estimate of 1967 is considered the best one.⁶⁰

Although there is no doubt that the possible new World War will not be the war between the South and the West, however, there is no reason to disregard the dangers of the growing Third World arsenals.⁶¹ A group of researchers view the Third World arm race and militarization nearly as a product of western imperialist conspiracy⁶² and the consequence of western politics aimed at exploitation and maintaining the peripheric status

59. Sethi, J.D., "Costs and Benefits", The Citizen, April 1970, p. 10.

60. The Hindustan Times, (New Delhi), July 24, 1970.

61. Mushkat, Marion, The Third World and Peace, (St. Martin's Press, New York, 1982), pp. 142-60.

62. G. Haraszti, G. Tunkin, A. Gromyko, Galtung, Senghaas, (Problemedes Friedens, der sicherheit und der Zusammenarbeit, Pahl - Rugenstein Verlag, Koeln, 1975). Quoted in Mushkat, n. 61, p. 155-65.

of the Third World.⁶³ There are many theories attempting to explain the causes of the arms race particularly threatening in our times. Some are based on Richardson schemes of action-reaction, others on the perception of real or fictitious dangers, or the wish to prevent any surprise attack by the hostile neighbours or rivals and to deter such an attack. They also focus on the impact of the military-industrial complex and of other bureaucracies and ruling elites.⁶⁴

The debate over the economic considerations (as discussed in Chapter-1 under "Defence and Development") still goes on not only in India but in both the developed and under-developed countries. Professor Emile Benoit⁶⁵ concluded that there was a positive rather than inverse co-relation between defence spending and economic growth in India, a finding that also seemed true of most developing nations. Similar are the views of K. Subramanyam and S.D. Muni (as discussed before in Chapter-1). Military investments and training according to Mushkat have frequently contributed to modernization and socio-economic progress in countries of every type of regime, in the capitalist countries, in the so-called

63. Cahn, A. Eessing, Kruzel, JJ., Dawkins P.M. and Huntzinger, J., Controlling Future Arms Trade, (Mc-Graw Hill Book Company, New York, 1977), p. 39.

64. Albrecht, U., Earst, D., Lock, P. and Wulf H., quoted in Mushkat, no. 61, p. 157.

65. Benoit, Emile, Defence and Economic Growth in Developing Countries. (Toronto: Lexington Books, 1973).

socialist ones, the Third World Countries and those with mixed economies like Israel.

⁶⁶ Saadet has analysed the economic effects of military expenditure in less developed countries. In less developed countries the size of defence budgets as well as the share of military spending in national income, is high and is still rising. From the 1970s the arms trade has been increasing and most of the spendings on arms is by the poorer nations of the world. Citing the experiences of specific countries - Brazil, South Korea, India and Indonesia she shows that higher spending on the military does have economic benefits. It can provide effective demand, stability, inter-industrial linkages, and other spin-offs. But the negative effects far outweigh the positive ones - there are strong reasons to believe that defence spending significantly depresses growths and constrains development.

Defence like any other economic activity involves the commitments of scarce resources. Also, modernisation of the forces is a prime necessity. Hence it would be more appropriate to find ways and means of optimising defence spending rather than reducing spending on defence.

66. Saadet, Deger, Military Expenditure in the Third World Countries, (Routledge and Kegan Paul Pub., London, Boston and Henley, 1986.

For any country defence and its security both internal as well as external is of prime importance. We have wasted at least a decade. Lost time cannot be regained. But realisation must come even at this late hour that we will be opting either for national suicide or for future fragmentation if we fail to use all our talents and our energies to rapidly build up a modest nuclear arsenal.⁶⁷

Shall we act or wait?

67. Rao, R. Rama, "Let us Start Building An Arsenal", World Focus (New Delhi), Vol.2, No.6, June 1981.

(C) DISCUSSION OVER REGIONAL AND
EXTRA REGIONAL LINKAGES:

India is already surrounded on all sides by nuclear weapon powers engaged in continuous proliferation of nuclear weapons. To the North, the Soviet Union and People's Republic of China possess a variety of nuclear weapons. The US Seventh Fleet operating in South East Asian waters has nuclear submarines, nuclear powered aircraft carriers and major warships. While there have been denials of US deployment of nuclear armed submarines in the Indian Ocean, these denials do not extend to the Seventh Fleet units in the Western Pacific and South China sea. Since 1980, the US has deployed a naval-air task force in the Northern Arabian sea (currently spearheaded by nuclear powered and nuclear capable aircraft carriers USS Nimitz and USS Midway).⁶⁸ The US base of Diego Garcia in Indian Ocean is capable of launching B-52 strategic bombers equipped for nuclear and/or conventional weapon delivery besides being able to support large size US combat forces in this region.

68. Singh, Jasjit, "External Threats to the Security" World Focus, Vol.8, no. 11 & 12, November/December 1987, pp. 39-42.

While galncing at our neighbourhood to see how we are placed vis-a-vis our neighbours, we will find Pakistan rather estranged from us. With a dispute over Kashmir. Up North in the Himalayas, we will find the Chinese Communist armies poised at the top of the Himalayas with their guns pointing down at us and in possession of territory obtained as a result of our military defeat during October-November 1962. A little to the East, one will find Nepal practicing non-alignment against us. A little further East, Burma lyes there cold and unfriendly to our nationals. Burma in its international relations is slowly being drawn into the Chinese communist orbit, creating the apprehension that she might some day become an Asian cuba. Laos and Vietnam, further East, are in flames, with United States single handedly trying to help Laos and Vietnam.⁶⁹

CHINA FACTOR:

China's growing military and industrial power, its skill in unbashed practice of realpolitik, and its location on the Northern boundary of India makes it strategically a most vital concern in Indian security perspective. The territorial problems that left to the

69. Masani, M.R. "The challenges of Chinese Bomb-II", India Quarterly, Vol. XXI, No.1, January-March 1965, New Delhi.

brief war in 1962 and which remain to cloud relations between the two heightens the security and strategic concerns. Beijings single-minded search for great power status, its militants and often narrow nationalism, and the continuous shifts in its political and strategic positions makes China a potent factor not only in India's security scenario but in Asia as a whole.⁷⁰

Much of current Indian thinking on the challenge posed by China to India's security tends to be narrowly focussed on the border problem and is measured in bilateral terms. While the situation on the Sino-Indian border - yet unsettled and replete with ominous prospects of boiling over at the sign of slightest military movement as in the 1986-87 Sumborong Chu-Wangdong incidents - is clearly important and the immediate cause for concern. The Chinese strategic challenge flows from the great power ambitions of China, its glorification of the PLA, its possession of the largest army; the third largest air force, a wide array of nuclear weapons, nuclear submarines, a large fleet of conventional submarines, and its growing naval presence in the South China sea, the Pacific and the Indian Ocean region.⁷¹ All this is backed by an increasingly outward looking and active military

70. Dutta, Sujit, "China and the Security of India", Strategic Analysis, (New Delhi), Vol. XII, No.2, May 1988, p. 125.

71. Ibid., 126.

strategy. The PRC's continued occupation of a large area of Ladakh, its renewed stress on its claim on Arunachal further boils the Sino-Indian relations. There is a total asymmetry in nuclear weapons between China and India. China is the world's third-largest nuclear weapon power. Its nuclear offensive forces are based on a triad of landbased ballistic missile, bomber aircraft, and SLBM - equipped submarines (see Appendix V).

China's current nuclear forces may be briefly summed up as follows.⁷²

Intercontinental ballistic Missiles (ICBM)	6	(T-5, range: 8-13,000 K.M. warhead : 3-5 MT)
Intermediate range ballistic Missiles (IRBM)	60	(10 X T - 3, range: 4,800-5,600 K.M. warhead : 2-3 MT)
		50 x T - 2. range : 2,700 - 3,200 K.M. warhead : 1 MT)
Medium - range ballistic Missiles (MRBM)	50	(T - 1, Range : 1,100 K.M. warhead : 20 KT)

72. Military Balance 1984-85, IISS, London, 1984.

In addition China has successfully tested its SLBM and one 'Xia' class nuclear-powered submarine is operational with 12 CSS - NX - 4 SLBMs. China is believed to have plans to manufacture 12 nuclear powered SLBM - equipped submarines in the next ten years or so. In addition, it is believed to possess a significant number of nuclear bombs for carriage and delivery by its 120 odd H-6 (Soviet Tu-16 model) bomber aircraft. China has also embarked on design and development of a twin - engined supersonic bomber for introduction into service in the nineties.⁷³

The ICBMs are believed to be deployed in concrete Silos among the mountains near the borders of Qinghai and Sichuan provinces; the lesser-range ICBMs are believed to be deployed among the mountains of inner Mongolia in the North-East, and the desert of Sinkiang in the North-West. The IRBMs are believed to be mobile and deployed more in the North rather than in Southern China. With any change in the Chinese perception they can be swung around to vital Indian targets.⁷⁴ The Chinese government now claims that its nuclear forces have "the combat capability to counter a surprise attack and then to launch a nuclear counter-offensive".⁷⁵

73. Aviation Week and Space Technology, (New York), July 15, 1985., pp. 61-63.

74. Kant Krishna, "Should India go Nuclear", IDSA Journal, Vol. XIV, January-March, 1982, p. 323.

75. Defence and Foreign Affairs, March, 1985.

China had initiated its nuclear weapon programme to create a minimum deterrent force to meet the perceived threats from the United States in the 1950-60s. The Chinese rationale for concern about similar threats in future has not disappeared since the normalisation of relations with USA, as borne out by the development of a fully intercontinental ballistic missile able to hit targets in the United States. Since the mid-sixties China has been more concerned about the nuclear threat from the Soviet Union. But the development of a 13,000 kilometer - range ballistic missile would not have been necessary to meet a Soviet threat.

The Third potential scenario for employment of Chinese nuclear forces is against countries other than the two super-powers. Here, China has once again adopted a sophisticated approach by pledging itself not to be the first user of nuclear weapons, thus implicitly offering a palliative to the security apprehensions of Asian countries and providing an incentive for them to remain non-nuclear. In fact, the usual "fog of war", increasing effectiveness of modern conventional weapons, problems of command and control on a sophisticated, mechanised and manoeuvre-dominated battlefield and a host of other factors tend to seriously lower nuclear thresh-holds and make it almost inevitable

that nuclear weapons, when available are likely to be used, by design or accident.⁷⁶

PAKISTANI FACTOR:

The nuclear threat to India arises from three quarters: the superpowers, great powers like China, and regional powers like Pakistan. Somehow, the nuclear threat from the superpowers is not taken seriously by Indian strategists. The Chinese nuclear-weapon capability was taken seriously in the sixties but there is no evidence that India is contemplating steps to match the Chinese nuclear weapons capability.⁷⁷ The main thrust of Indian nuclear strategy is, at present, directed at neutralizing the consequences of the Pakistan nuclear programme.

The threat perception of Pakistan is based on an intricate set of fears which are historical and deep rooted in the Indian psyche.⁷⁸ Having fought three major wars, India naturally views with suspicion any move by that country to acquire new weapons, new technology and new friendship with other countries.

76. Subrahmanyam, K., ed., Nuclear Proliferation and International Security. (IDSA, New Delhi, 1985).

77. Gupta, B., Nuclear Weapons? Policy Options for India, (Sage Publications, New Delhi/Beverly Hills/London, 1983), p.40.

78. Paul, T.V., Reaching for the Bomb, (Dialogue Pub., New Delhi, 1984), p. 28.

Pakistan's adventurism in the Siachen Glacier area⁷⁹, her involvement in sowing the seeds of dissent and separatism in the Punjab⁸⁰ and Jammu & Kashmir⁸¹, her insistence on raking up the Kashmir issue in world forum, have further compounded the soured relations that have existed between the two countries since the partition of the sub-continent.

US-Sino-Pak Tangle poses another threat to the security of India⁸². Pakistan in collusion with China and with military and technological assistance from the USA continues to act as a belligerent neighbour and flex her military muscle at the least supposed provocation.

US strategic interests in Pakistan and the past circumstances⁸³ forced India to adopt a Soviet bias to counter US aid to Pakistan. Pakistan is now the

79. See 'The Siachen Impasse', Indian Defence Review, July 1988, p. 44.

80. See India as a Regional 'Superpower', Thomas, Mathew, IDR, July, 1989, pp. 13-17.

81. Ibid., p. 30.

82. Subramaniam, R.R., India, Pakistan, China - Defence and Nuclear Tangle in South Asia, (New Delhi) ABC, Pub., 1989), pp. 42-68.

83. Lt. Gen. EAVAS, Pakistan's Military Compulsions in the coming Decade, Indian Defence Review, Vol. 12, 1988, p.18.

fourth largest recipient of US assistance.⁸⁴ Backed by the procurement of F-16 aircraft fitted with the most modern and lethal armament mix, modern tanks and ICVs, self-propelled (SP) and towed artillery, third generation anti-tank missiles (TOW) mounted on ITVs, and the latest state of the art C₃I and surveillance systems, all contained in a arms deal with her mentor, the USA, Pakistan has forged ahead in the power equation.

Pakistan ranks second (after North Vietnam) among China's military aid recipients since the start of China's military aid programme in 1958.⁸⁵ China has given Pakistan a considerable quantity of Type-59 Tanks with a provision for mounting 12.7 mm anti-aircraft guns.⁸⁶ Pakistan received nine Shanghai class motorboats

84.(a) Continued Assistance to Pakistan. The Schaffer Testimony, Source: Wireless File, Story NE 3230308, date 08/3/89, Strategic Digest, May 1989 IDSA.

(b) Beginning in 1982 the United States provided aid in the amount of \$3.6 billion for five years, divided equally between military and economy assistance. In late 1987 Washington agreed to provide a further package of \$4.02 billion for the next six years (\$670 million annually) on generally concessional terms, with 57 per cent targeted as economic aid and the remainder as military assistance, mainly for the purchase of US weapons. Fiscal years 1988 and 1989 saw cuts of ten and 15 percent respectively as a result of overall budget constraints.

85. World Military Expenditure and Arms Transfer, 1966-75 ;, p. 78.

86. Gelks, Ann and Segal, Gerald, China and Arms Trade (London, 1985), p. 67.

in 1971 of which four could be converted for firing missiles.⁸⁷ By 1987 the Pakistan Navy also had four Huangfen (4 HY-2 SSM), four HDKU (2 HY-2) and FAC (gun), 12 Shanghai - II from China.⁸⁸

Chinese acquisition for the Pakistan Air Force were, 160 F-6s from 1966 to 1968, 112 in 1973-74, 28 in 1974-75, 26 more in 1978, followed in 1979 by 65 more apart from the 60 already in service. A-5 Fantan A aircraft on order were delivered in 1986. During 1984 China exported 24 Q5/A-5 fighters to Pakistan followed in 1985 by another 18 and an additional 35 in 1986, out of 100 ordered in 1984.⁸⁹ This particular type of aircraft was first given to Pakistan in 1978.⁹⁰ The PAF is also in possession of 170 Shenyang J-6, 45 Shenyang JJ-5 (Mig-17 U) and 12 Shenyang CJ-6.⁹¹ By far the most important contribution to the Pakistan defence system by China was the establishment of heavy mechanical complex and heavy foundry and forge near Taxila, a tank rebuild factory and a plant near Attock with facilities for repairing MiG-19/F-6 and the Heavy Electrical Complex in Haripur to produce 500 KV power transformers and associated equipments.⁹²

87. Ibid. n. 86, p. 70.

88. Military balance and SIPRI, n. 20.

89. Ibid.

90. Gelks and Segal, n. 86, pp. 67-70.

91. Military Balance and SIPRI, n. 20.

92. Ali, Mohsin, "35 Years of Sino-Pakistan relations Dawn, May 21, 1986.

The well known American columnist, Jack Anderson has suggested that China undertook a secret nuclear test on behalf of Pakistan in May 1983.⁹³ Pakistan, that was 20 years behind India in 1971-72 has galloped to a point where it is five years behind India and is about to achieve nuclear weapon building capability.⁹⁴ (see Appendix VI).

In the global strategic environment too, Pakistan is becoming an important actor ever since the Afghanistan crisis started in 1979. The Indian concern in this regard is that Pakistan may become the next candidate for selective nuclear proliferation as in the case of Israel and South Africa by the Western powers.⁹⁵

A situation of nuclear asymmetry in the sub-continent in favour of Pakistan would be unthinkable for India which would neutralise the kind of conventional superiority India might hope to enjoy by nineties.⁹⁶ It would also give an opportunity to Pakistan to grab the disputed Kashmir territory by holding out a nuclear threat. The impact of such a threat on the Indian population especially of Punjab and the Armed Forces can

93. Times of India, November 6, 1985.

94. Kant, Krishan, "Should India go Nuclear?" IDSA Journal, Vol. XIV, January-March 1982, p. 307.

95. Bajpai, U. S. India's Security: The Politico-Strategic Environment, (New Delhi, 1983,) p. 75.

96. Ibid., p. 77.

be well foreseen as that of continual fear and morale losing.⁹⁷

Against this background what are the alternatives open to us to meet the Chinese and Pakistani challenge? Two broad courses are open to us: either it modernise its defence (including producing nuclear weapons) or it accepts the second-class status implied in the super powers concept of equilibrium.

ANTI-BOMB ARGUMENTS:

The Anti-Bomb Lobby⁹⁸⁻¹⁰⁴ give various arguments viz. cost factor, political, economic and domestic

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97. Ibid., pp. 77-78.
98. Nehru, R.K., "The Challenges of the Chinese Bomb-I", India Quarterly, (New Delhi), Vol. 21, No.1, 1965p, 3.
99. Masani MR., "The Challenge of the Chinese Bomb-I," India Quarterly, (New Delhi), Vol. XXI, No.1, 1965, p.1.
100. Sinha, K.K., "India's Nuclear Dilemma", Military Review, (USA), Vol. XLVII, No.10, October 1968, p. 50.
101. Menon, C.P.K., The Owl. Wellington, Vol. XXV, 1969, p. 17.
102. Jain, Girilal, "Demand for the Indian Bomb", The Times of India(New Delhi), May 13, 1970.
103. Anita, S.N., "Need for a National Debate on the Bomb", The Statesman(New Delhi), May 12, 1970.
104. Madhavan, T.K., "Bomb, The Nation's Shame", World Focus, Vol. II, No.6, June 1981.

considerations against making of a Bomb. The bomb can not provide a short cut to "security, self-respect and influence", was emphasised by Girilal Jain.¹⁰⁵ He, however agreed that China was able to impress world opinion and had mastered the art of revolutionary struggle in countries on its border; and this might enable China to extend its influence in South-East Asia. He has not given any suggestion to curb China's influence in South-East Asia, India and Burma. Frank Moraes lauded India's stand on nuclear non-proliferation treaty and development of nuclear weapons, but has not given any suggestion to meet the threats from our adversaries.¹⁰⁶

The former Secretary in the Ministry of Defence P.V.R. Rao and Gen. K.M. Cariappa do not favour India going nuclear, the former suggesting that the country seek a "nuclear umbrella" from the superpowers and latter suggesting that possession of nuclear weapons will not provide any security against threat from China or Pakistan which are conventional.¹⁰⁷

The anti-bomb views have been clearly enunciated by Desai¹⁰⁸ who stated "India will be playing straight

105. Jain, no. 102, pp. 65-102.

106. Moraes, Frank, Guha, Samar, Jain Girilal and Dutt Som, "Nuclear Weapons for India - Four views", India and Foreign Review, Vol. 7, No. 16, June 1970, p.9.

107. "Bomb or No Bomb? Opinions Vary", The Times of India, June 8, 1970.

108. Desai, M.J., Secretary General of External Affairs Ministry, 1965 Cited by Gupta Sisir, The Indian Dilemma, op. cit.

in to the hands of China if because of fear or emotional reaction or prestige considerations, it enters into a nuclear race with China. The enormous diversion of resources and talents required will retard India's economic and social development programmes indefinitely and by creating scarcity and economic dislocation and social discontent not only weapon India internally but eliminate as a political factor in Asia and Africa".

Menon said that it would be folly for India to expose Nuclear Device.¹⁰⁹ According to him the best way to deal with it is to get rid of it.¹¹⁰ Manufacture of Bomb according to Morarji Desai is suicide.¹¹¹

Dhirendra Sharma in his book, "India's Nuclear Estate" has criticised the Indian official science and technological policy. In a scathing attack on India's Nuclear Policy, Sharma, who is convenor of the Committee for Sane Nuclear Policy urges the nation to pause and take a fresh look at its nuclear strategy. Rather he suggests that we should develop an alternative energy technology; which is efficient, renewable and safe.

He criticises the pro-nuclear bomb lobby saying that pro-nuclear arguments rest on two claims - that nuclear power is cheap and clean. The fact is that it is neither cheap nor clean. In truth, nuclear power is

109. V.K. Krishna Menon's speech reported in Patriot, New Delhi, October 24, 1964.

110. The Statesman (New Delhi), August 8, 1966.

111. The Indian Express (New Delhi), January 13, 1965.

the most unclear or dirtiest source of energy ever known to humankind.¹¹²

PRO-BOMB ARGUMENTS:

The final report of the International Assembly of Nuclear Weapons,¹¹³ held on 23-26 June, 1966, stated that there were three basic reasons that might prompt some countries to embark upon a nuclear weapon programme. These are:

- (a) anxiety for their own security and the wish to introduce a stronger element of deterrence into their systems of national defence;
- (b) a desire to share in the position of prestige and influence which possession of nuclear weapons is thought to confer upon the existing nuclear powers; and
- (c) a drive for greater autonomy.

The question of security now appears to play a larger part in urging India to go nuclear.

It is interesting to recollect that Nehru himself as early as 1946 stated that India would develop nuclear

112. The Illustrated Weekly, April 22-28, 1984.

113. Final Report by the International Assembly on Nuclear Weapons, held on June 23-26, 1966, "The Control of Proliferation", Survival(London), Vol. VIII, No.9, September 1966, p. 278.

power exclusively for peaceful purposes, but he added that "so long as the world was constituted as it was, every country would have to develop and use the latest scientific devices for its protection."¹¹⁴ Certainly the constitution of the world as India sees it now is little better than it was in 1946. It has been argued that India will go nuclear essentially for domestic political reason, that is, to foster national pride and to help further internal unity.¹¹⁵ It is possible that in some future policy crisis, an Indian government could believe that its decision to develop nuclear bombs would both gain wide public support and also demonstrate its determination to defend itself against a hostile party. Here the decision would not only be based on public acquiescence but also on demands from within the governing party.¹¹⁶

The Institute of Public Opinion, New Delhi, estimates that in 1968 over 75 percent of the Indian people from all walks of life favoured India's taking the decision

114. Kavic, Lorne J., *India's Quest for Security*, (Los Angeles: University of California Press, 1967), pp. 28 and 212; Also refer Beaton, Leonard and Maddox, John, *The Spread of Nuclear Weapons*, (Chatto and Windus, Pub., London, 1962), p. 141.

115. Edwards, Michael, "India, Pakistan and Nuclear Weapons", *International Affairs* (London), Vol. 43 No. 4, 1967, p. 660.

116. *Ibid.*, pp. 664-689.

to produce these weapons.¹¹⁷ That is today it is the administration which opposes India producing nuclear bombs, not the people.

There is growing conviction in many Asian countries that conventional forces are not in themselves a sufficient deterrent to aggression. How much importance the outside world would attach to communist China today, if it had not entered the nuclear club! would we not pass off Peking as an internationally insignificant conglomeration of feuding factions, its economic house not in order, and greatly overrated as an international actor.¹¹⁸ China's entry of the nuclear club has enhanced its national prestige and influence on the international scene. The nuclear weapons completely alter the range of alternatives open to any country and dramatically add to the national security of large countries. This compels India along with other regional and extra regional pressures to urge immediate production of nuclear weapons.

The Indian Parliamentary and Scientific Committee organised a seminar on "Nuclear Options and Thier Implications for India" on May 9-10, 1970, which was attended by scientists, economists, defence experts and

117. Monthly Public Opinion Surveys, Indian Institute of Public Opinion, February, 1968.

118. Quester, George H., "India Contemplates the Bomb", Bulletin of the Atomic Scientists, Vol. XXVI, No.1, January 1970, p. 13.

Members of Parliament. The participants agreed that no option was left to India but to go nuclear, and that too, without losing any more time. The consensus of opinion was that:

- a nuclear project was technically feasible, politically highly desirable, strategically inescapable and economically not only sustainable but actually advantageous;

- the cost of a nuclear bomb programme would, instead of crushing the Indian economy, accelerate growth of industry and technology;

- the nuclear programme had a definite advantage as it would provide 50,000 jobs for engineers, scientists and technicians;

- acquisition of military weapons would have more military advantage than political; and

- if national survival and existence were objectives, the cost of the bomb should not stand in the way of its production.

With Pakistan with the capacity to build a bomb and China modernizing its weaponry (see Appendix V & VI) India can not wait and watch. We were ahead of China in nuclear technology in the fifties. Now China is ahead

of us in nuclear weapon technology by 10-12 years. Even Pakistan is trying to bypass us. Dr. A.Q. Khan and subsequently Gen. Zia and Benazir Bhutto have claimed that Pakistan has reached Uranium enrichment capability in a much shorter span of time than the European consortium.¹¹⁹ On June 21, 1984, Senator Cranston on the basis of a declassified secret document, revealed that Pakistan has already acquired the capability to make a nuclear bomb with Chinese help. According to this testimony it is estimated that Pakistan can make at least a dozen nuclear bombs during the next three to five years.

The purchase by Pakistan of high-tech cameras known as X-ray flash machine from Sweden enables Pakistan scientists to study "compression" characteristics of a nuclear assembly at the point of detonation. In a sense therefore, Pakistan has done everything but test the bomb.¹²⁰

A policy of making the bomb in India should indeed be a total break with the past policies. It may indeed deprive us of what is now our major source of sustenance, foreign aid. It should be noted that any deterioration

119. Kant, Krishan, Nuclear Threat; India's Policy options, Mainstream(New Delhi), 23 (42); June 15, 1985, pp. 7-8.

120. Ibid., pp. 12-16.

of relations with the great powers can only be temporary, whatever importance India had in past in the minds of Moscow and Washington is only likely to be further underlined by the emergence of India as independent power factor.¹²¹

The pro-bomb lobby¹²²⁻¹³⁰ opines that India can not afford to remain without nuclear weapons in such circumstances. The very possession by Pakistan of nuclear

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121. Gupta, Sisir, "Break with the past, Seminar (New Delhi), No. 65, January 1965.
 122. Subrahmanyam K, Nuclear Myths and Realities: India's Dilemma (New Delhi) ABC Pub., 1981.
 123. Rao, R. Rama, "Let us start building An Arsenal" World Focus, Vol. 2, No.6, June, 1981.
 124. R.R. Subramaniam, India, Pakistan China - Defence and Nuclear Tangle in South Asia, (New Delhi) ABC, Pub., 1989.
 125. Sawhny, Brig. Rathy, Indian Express, May 26, 1970.
 126. D.K., Palit, Hindustan Times, March, 2, 1970.
 127. Kapur Ashok, "China, Arms Control and Nuclear Weapons", China Report, (New Delhi), Vol. V, No.6, November-December 1969, p.1.
 128. G.D. Desingkar, "China's Earth Satellite: The case for Indian Bomb", China Report(New Delhi), Vol.VI, No.3, May-June 1970, p. 28.
 129. Kaul, T.N., "We have tarried too long", World Focus, (New Delhi), Vol.2, No.6, June 1981.
 130. Jain Girilal, "The Imperatives of staying Ahead", World Focus(New Delhi), Vol. 2, No.6, June 1981.

weapons, however few, would change the power balance in the sub-continent to this country's grave disadvantage exposing it to the risk of blackmail or worse.

In the current global strategic environment in which against our opposition nuclear weapons have been made an international currency of power and surrounded by three nuclear weapon powers of the world it is absurd for a country of India's size, population and resources to talk of non-alignment and keeping her options open by renouncing nuclear weapons.¹³¹ The problem of defence is in ultimate analysis, the problem of utilisation and mobilisation of all the socio-economic tools of society in relation to the problem of making war, as distinct from the problem of peace and progress. In fact the two problems are not so much opposed to each other, they really involve a switch of mechanism.¹³²

131. Subrahmanayam, K, "Nuclear Myths and Realities - India's Dilemma, Ed., (ABC Pub. House, New Delhi, 1981).

132. Habibullah, E., Approach to Defence, Mainstream Annual 1981, p. 147.

CONCLUSION

The citadel of the nuclear club has been breached. To the exclusive membership of five, the USA, USSR, Britain, France and China, must now be added Israel and South Africa. Many more are knocking at its doors. Among the threshold powers one should reckon India, Pakistan, Brazil, Argentina and perhaps even Taiwan. Nuclear technology is not so complex as to make it beyond the reach of many middle powers.

We find that the security concept has undergone a sea change and by no means it is confined to the adequate measures of making one's border impervious and sturdy only. A country's foreign policy and security alertness and preparedness is said to be complete if she has taken all factors in the global arena and fora into account.

Quest for security, fear of nuclear-blackmail, internal pressures and external (regional and extra regional) environment forces a country to go nuclear. The limitations of arms control lobby at the superpowers level, the reluctance of the European powers to give up the strategy of nuclear deterrence and flexible response, need of nuclear weapons as necessary deterrent; British, French and Chinese amassment of nuclear arsenals and

limitations of INF adds to the insecurity of Third World countries.

Today there is no doubt that Third World countries has entered a decade of nuclear ambiguity. Israel, Pakistan, India, Brazil etc. has successfully adopted a strategy of ambivalence in regard to its nuclear policy. So far as India is concerned its nuclear policy is mainly shaped in relation with its immediate neighbour, Pakistan on account of our age-old rivalry and three frontier attacks. So far as China is concerned some argue that a miniscule nuclear arsenal against a larger arsenal does not constitute an adequate deterrent. This is not acceptable. If we can be wiped out by China, a large area of it will be destroyed in the process. Admittedly, this is an unequal exchange but no rational Chinese leader will consider such a sacrifice worthwhile. In strategic parlance this is termed as Proportionate Deterrence.

In fact, because of Pakistan's strategy of ambiguity, a national nuclear asymmetry exists between India and Pakistan. Pakistan has adopted a three-fold approach whilst developing a Nuclear Weapon System.

First, the Government denial that Pakistan is planning to acquire a NW capability.

Second, to plead for cooperation from India to stop the arms race by playing on the emotions of Indian pacifist by offering India mutual inspection of nuclear facilities or a Nuclear-Weapon-Free zone.

The Third approach is to have reliable sources, such as Dr. Khan and others, make 'indiscreet' but timely disclosures that Pakistan has a nuclear capability.

Pakistan's aim is to adopt a posture of ambiguity by creating a strong impression of Pakistan's capability by vehement public denials of it, and at the same time appealing for co-operation, thereby transmitting three contraccictory signals to India.

Thus, we may proceed with the assumption that India is faced with two likely situations in coming decade.

AN AMBIGUOUS SCENARIO

Pakistan will not test-fire a NW on its territory but will continue its three-fold approach of ambiguity. Meanwhile, it will secretly manufacture 20-KT A-bombs, (This requires no testing, even if one were to accept that a Pakistani bomb was not tested at Lop Nor in 1983). These can therefore be manufactured en masse and be fully operational.

AN ASSURED SCENARIO

When Pakistan has built up a sizeable stockpile of 20-KT A-bombs and if it suits the government in power, and/or in the event of it facing a serious security threat, it will announce that it has NWS. It may then also test-fire its H-bomb, thereby not only giving public evidence of its NW capability, but also confirming its H-bomb design so that these may be assembled and manufactured en masse for operational use.

Irrespective of which of the above scenarios is adopted, it is evident that to act on any assumption other than that Pakistan has already achieved a NW status and is steadily building up a stockpile will be the height of irresponsibility on the part of India's security planners.

To meet these perceived Pakistani threats, some urge that India should immediately announce that it is regrettable being forced to manufacture NWS in order to counter both China and Pakistan. Such a step is premature for several reasons.

Firstly; it would be welcomed by Pakistan as it would give them a legitimate excuse to justify the adoption of the Assured Scenario outlined above.

Moreover, India's reactions would be badly received by the Non-Aligned Nations and others who look up to India as an influential spokesman in the crusade to abolish NWS. Also India would be abandoning its long-standing anti-nuclear weapon stand; it would be branded as the culprit responsible for proliferation of NWS in South Asia. Lastly, such a drastic step is avoidable if India adopts either of the following two paths:

A. As long as Pakistan pursues its ambiguous strategy as outlined above, India must also adopt a strategy of ambivalence. It must continue to announce that it has knowledge that Pakistan is secretly manufacturing NWS, that it is watching the situation and is taking appropriate measures to meet this threat. Meanwhile, without any official proclamations, Indian scientists can justifiably fabricate 20-KT A-bombs but leave these non-operational so that only minor connections are required to make them ready for use at short notice. This is termed as a last - wire strategy which would enable India to conform strictly to its declared policy that it will not manufacture NWS, yet allow it to keep all its options open.

B. The second is that in the event of Pakistan adopting the assured scenario outlined above, India should

announce it, too, is regrettably being forced to assemble NWS and appropriate delivery systems to meet its security threat.

On the extra regional front too India should continue its urge for global disarmament. Unless the whole world is devoid of nuclear weapons India can not give up its options.

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TABLE - I

PLUTONIUM STOCKPILES AND PRODUCTION RATES IN THE
YEAR 2000

	Critical Masses (UN 8 Kg. Values)	Production Rate (per year)
INDIA	1,100	100
PAKISTAN	300	15
ISRAEL	60	2.5
IRAQ	25	2.5

Source: Kramish, Arnold., in Jones, Rodney W.
ed. Small Nuclear Forces and U.S.
Security Policy. (Toronto: Lexington
Books, 1984), p.29.

TABLE II

MODERN NUCLEAR-CAPABLE AIRCRAFT, 1982

Country	Total operational combat Aircraft	Total dedicated to attack Mission	Nuclear-Capable Long Range/Strike	Range in Miles 2,000 lbs. Payload.
India	635	227	116 10 Mig-23 BN/UM	250-450
			16 Jaguar GR-1	450
			45 SU-7 MKBM	110-200
			45 Canberra B (1)-58	700
Pakistan	219	62	54 34 Mirage 5 PA	400-810
			6F-16 B	750
			14 Canberra B-75	700
Iran	217(?)	130(?)	70(?) F-4 D/F	470
Iraq	330	115	200 75 Mig-23 BM	240-450
			80 SU - 20	375
			36 Mirage F-1	470
			9 TU - 22	1,925
Syria	450	205	202 62 Mig-23 BM	250-450
			40 SU - 20	375
			100 Mig-21 BIS	250 or more

Contd....

Country	Total operational combat Aircraft	Total Dedicated to attack Mission	Nuclear-Capable Long Range/Strike	Range in Miles 2,000 lbs. payload
Israel	634	N. A.	244	
			40 F-15 A/B	1,250 or more
			138 F-4 E	470
			66 F-16 A	560
Egypt	429	232	100	
			10 F-16	560
			35 F-4 E	470
			40 Mirage 5	400-810
			14 TU-16	1,900
Libya	555	218	203	
			14 Mirage F-1 AD	470
			100 SU-20/22	375
			45 Mirage 5D/DE	375
			32 Mig-23 BM/U	250-450
			7 TU-22	1,925

Source: Adapted from estimates by Anthony Cordesman in Jones, Rodney W., ed. Small Nuclear Forces and U.S. Security Policy. (Toronto: Lexington Books, 1984), p. 45.

TABLE III
NUCLEAR CAPABLE BALLISTIC MISSILES

Country	Number and types of Deployed Systems	On Order or Under-Development	Estimated Number		Range in Miles
			1990	2000	
Israel	12 Lance SSM ? Jericho SSM		35	-	5 - 75
			50	25	300 - 375
		Jericho II SSM	6	35	600 - (?)
Egypt	12 Frog 7 SSM 12 Scud B SSM		?	-	10
		Indigenous SSM	24	?	100 - 75
			?	60	375 or more
Libya	48 Frog 7 SSM 70 Scud B SSM		48	?	10
			70	70	100 - 175
		? SS-22 SSM	?	?	700
		? SS-23 SSM	?	?	220
Iraq	19 Frog SSM 9 Scud B SSM		?	?	10
			60	100	100 - 175
		? SS-22 SSM	?	?	700
		? SS-23 SSM	?	?	220
Syria	24 Frog 7 SSM 70 Scud B SSM		24	-	10
			70	70	100 - 175
		? SS-22 SSM	?	?	700
		? SS-23 SSM	?	?	220
India		Indigenous SSM	24	-	300 - 350
		Indigenous SSM	-	150	60 - 400
		Indigenous IRBM	-	30	1200
Pakistan		Chinese SSM	?	?	375 or more
		Indigenous SSM	?	35	300

Source: Adapted from estimates by Anthony Cordesman. in Jones, Rodney W., ed. Small Nuclear Forces and U.S. Security Policy. (Toronto: Lexington Books, 1984), p. 47.

TABLE IV
STRUCTURE OF OPINION ON INDIA'S GOING NUCLEAR
(IN PERCENT)

Like India To Go Nuclear:

<u>Year</u>	<u>Delhi</u>	<u>Calcutta</u>	<u>Bombay</u>	<u>Madras</u>	<u>Average</u>
1970	78	77	71	49	69
1971	86	68	45	53	63

Even If It Involves
Greater Tax Burden:

1970	76	46	52	35	52
1971	81	41	30	35	47

Drastic Cut in
Development
Expenditure:

1970	75	28	42	36	46
1971	76	24	19	33	38

Source: Monthly Public Opinion Surveys.
Indian Institute of Public
Opinion, December, 1971, p. 51.

TABLE V

POSSIBLE COST OF A PLUTONIUM-BASED NUCLEAR
WEAPONS SYSTEM (\$ Million)

Fissile material production	300
War head design and Tests	500
Basic rocket programme	500
Re-entry rocket	100
Rocket test facilities	200
Development and production of a ballistic missile.	700
	<hr/>
	\$ 2,300
	=====

Source: Beaton, Leonard. *Must the Bomb Spread?* (Penguin Books in Association with the Institute for strategic studies, London, 1966).

TABLE VI
ESTIMATED COST OF 100 PLUTONIUM-BASED
WARHEADS OVER 10 YEARS

	Capital Cost	10 x (Annual Operating cost)
Fissile material and Warheads	57.8	55.5
Factory for assembling Warheads	6.0	7.5
Testing	..	11.3
Storage and maintenance	..	3.0
TOTAL	<u>63.8</u> =====	<u>77.3</u> =====
Total cost over ten years	141.1	
Annual Average	14.1	
Cost per Warhead	1.4	

Source: United Nations General Assembly Report,
No. A/6858, October 10, 1967.

TABLE VII

COST OF FRENCH NUCLEAR WARHEADS PROGRAMME

(Rupees in Crores)

	Fissile material production	Design and manufacture	Testing	Total
To 1960	120	30	30	180
1960-64	660	345	225	1,230
1965-70	Not known	Not known	Not known	2,385
Grand total over 10 years	3,795

The costs are expected to stabilise after 1970.

Source: United Nations General Assembly
Report No. A/6858, October 10, 1967.

TABLE VIII

ACTUAL COSTS OF NUCLEAR FORCES

Country	Period	Total Costs (Rs. in Cr.)	Actual Costs as % of	
			Military Budget	G.N.P.
FRANCE	1960-64	1,800	13	0.7
	1965-70	3,900	18	0.9
U.K.	1962-63	360	10	0.7
	1965-66	263	6	0.4
	1966-67	225	5	0.3
U. S. A.	1962	9,900	26.4	2.4
	1963	9,075	23.3	2.1
	1964	8,400	21.1	1.8
	1965	6,150	16.8	1.3
	1966	6,150	14.6	1.2
	1967	6,300	12.1	1.2

Source: United Nations General Assembly Report, No. A/6858, October 10, 1967.

TABLE IX

ESTIMATED COST OF A MODEST NUCLEAR CAPACITY

(Rs. in Crores)

	Number	Procurement Cost	Operating cost
Warheads	100	150	..
	30-50	135	188
	50	675	112
TOTAL		<u>960</u>	<u>300</u>

Source: United Nations General Assembly
Report No. A/6858, October 10, 1967.

APPENDIX - I

INF TREATY

NATO TO SCRAP

- Ground - Launched
Cruise Missiles

- PERSHING 11 Medium
Range Ballistic
Missiles

- PERSHING 1A^{*}
Short Range Ballistic
Missiles

WARSAW COUNTRIES TO
SCRAP

- SS-4 and SS-20 Medium range
ballistic missiles

- SS-23 and SS-12 Short range
Ballistic Missiles

Treaty covers only 4%
of World's Nuclear
Weapons

TOTAL WEAPONS ELIMINATED :
NATO : 700-800 Weapons
(1 Warhead each)
WARSAW PACT : 1,900 Weapons
(3,800 Warheads)

*Not included in Treaty but will be scrapped within 3 Years.

SOURCE : International Institute of Strategic Studies.

APPENDIX - II

TECHNOLOGY AND DETERRENT STRATEGY

MILITARY TECHNOLOGICAL INGREDIENTS

- Atomic Bomb : 1945
- Growth of US Nuclear arsenal from
 - 2 bombs in 1945
 - 250 bombs in 1949
 - 1,350 bombs in 1953

- Thermonuclear Weapon : 1953

STRATEGY/DOCTRINE

'Massive Retaliation' doctrine
(based on Presidential Directive
NSC - 162/2 dated Oct 30, 1953)
Publicly proclaimed on
January, 12, 1954

- Soviet Sputnik launched 1957
- ICBM deployment starts 1957-60

- Growth of US nuclear arsenal from
1,350 warheads in 1953 to
26,500 warheads in 1962
(Mostly tactical battle field
weapons)
- Space exploration: between 1958 - 62 Us
launched :
 - First 51 photo - ~~recce~~ satellites
(The USSR 5)
 - 4 electronic recce satellites
 - 7 navigation satellites
 - 8 communication satellites
 - 1 geodetic satellite

- Strategy of 'Flexible Response'
proposed in May 1962.
Formally adopted by NATO in
1967(Under MC 14/3)
- 'Counterforce' doctrine: 1962
National Security Decision
Memorandum NSDM 242

- Soviet Build-up of strategic nuclear warfare capabilities(1960s)
- MIRVing resulting in increase of deliverable strategic warheads between 1970 - 80
 - USA : From 4,000 to 9,200
 - USSR: From 1,800 to 6,000
- Increased accuracy of ballistic missiles
 - CEP in 1972 : 500 metres
 - CEP in 1980 : 200 metres
- Ballistic Missile Defence
- PGM growth
- RSTA Technologies
- Space-based system for C³I functions of strategic warfare
- Nuclear warfighting with counter-vailing strategy' (PD-59 of July 25, 1980)
- Air Land Battle 2000
- Superseded by NSDM-13 of 1982 introducing strategy of 'prevalence' in a protracted nuclear war

- Emerging technologies
- Space-oriented BMD technology development
(R and D for laser weapon technology
development alone cost \$ 1,862 million
by 1981 in the US)
- ASAT Technologies
- Strategic Defence Initiative
announced in March 23, 1983

SOURCE : Singh, Jasjit, "Military Technology and International Security".
Strategic Analysis (December 1987) pp 1002 - 03

APPENDIX - III

TREATY BANNING NUCLEAR WEAPON TESTS IN THE
ATMOSPHERE, IN OUTER SPACE AND UNDER WATER¹

The Government of the United States of America, the United Kingdom of Great Britain and Northern Ireland, and the Union of Soviet Socialist Republics, hereinafter referred to as the "Original Parties".

Proclaiming as their principal aim the speediest possible achievement of an agreement on general and complete disarmament under strict international control in accordance with the objectives of the United Nations which would put an end to the armaments race and eliminate the incentive to the production and testing of all kinds of weapons, including nuclear weapons.

Seeking to achieve the discontinuance of all test explosions of nuclear weapons for all time, determined to continue negotiations to this end, and desiring to put an end to the contamination of man's environment by radioactive substances.

1. Signed at Moscow by the Union of Soviet Socialist Republics, the United Kingdom and the United States of America on 5, August 1963.

Have agreed as follows:

ARTICLE I

1. Each of the Parties of this Treaty undertakes of prohibit, to prevent, and not to carry out any nuclear weapon test explosion, or any other nuclear explosion, at any place under its jurisdiction or control:

(a) in the atmosphere, beyond its limits, including outer space; or underwater, including territorial waters or high seas; or

(b) in any other environment if such explosion causes radioactive debris to be present outside the territorial limits of the State under whose jurisdiction or control such explosion is conducted. It is understood in this connection that the provisions of this sub-paragraph are without prejudice to the conclusion of a treaty resulting in the permanent banning of all nuclear test explosions, including all such explosions underground, the conclusion of which, as the Parties have stated in the preamble to this Treaty, they seek to achieve.

2. Each of the Parties to this Treaty undertakes furthermore to refrain from causing, encouraging, or in any way participating in, the carrying out of any nuclear

weapon test explosion, or any other nuclear explosion, anywhere which would take place in any of the environment described, or have the effect referred to, in paragraph 1 of this Article.

ARTICLE II

1. Any Party may propose amendments to this Treaty.

The text of any proposed amendment shall be submitted to the Depository Governments which shall circulate it to all parties to this Treaty. Thereafter, if requested to do so by one-third or more of the Parties, the Depository Governments shall convene a conference, to which they shall invite all the Parties, to consider such amendment.

2. Any amendment to this Treaty must be approved by a majority of the votes of all the Parties to this Treaty, including the votes of all of the Original Parties. The amendment shall enter into force for all Parties upon the deposit of instruments of ratification by a majority of all the Parties including the instruments of ratification of all the Original Parties.

ARTICLE III

1. This Treaty shall be open to all States for signature. Any State which does not sign this Treaty before its entry into force in accordance with paragraph 3 of this Article may accede to it at any time.

2. This Treaty shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be deposited with the Government of the Original Parties--the United States of America, the United Kingdom of Great Britain and the Northern Ireland, and the Union of Soviet Socialist Republics - which are hereby designated the Depository Government.

3. This Treaty shall enter into force after its ratification by all the Original Parties and the Deposit of their instruments of ratification.

4. For States whose instruments of ratification or accession are deposited subsequent to the entry into force of this Treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

5. The Depository Governments shall promptly inform all signatory and acceding States of the date of each

signatures, the date of deposit of each instrument of ratification of an accession to this Treaty, the date of its entry into force, and the date of receipt of any requests for conferences or other notices.

6. This Treaty shall be registered by the Depository Governments pursuant to Article 102 of the Charter of the United Nations.

ARTICLE IV

This Treaty shall be of unlimited duration.

Each party shall in exercising its national sovereignty have the right to withdraw from the Treaty if it decides that extraordinary events, related to the subject matter of this Treaty, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all other Parties to the Treaty three months in advance.

ARTICLE V

The Treaty, of which the English and Russian texts are equally authentic, shall be deposited in the archives of the Depository Governments. Duly certified copies of this Treaty shall be transmitted by the Depository Governments to the Governments of the signatory and acceding States.

In WITNESS WHEREOF the undersigned, duly authorized, have signed this Treaty.

DONE in triplicate at the city of Moscow the fifth day of August, one thousand nine hundred and sixty-three.

Source: UN Doc. ENDC/100/Rev.1.

APPENDIX - IV

TREATY ON THE NON-PROLIFERATION
OF NUCLEAR WEAPONS*

The States concluding this Treaty, hereinafter referred to as the "Parties to the Treaty".

Considering the devastation that would be visited upon all mankind by a nuclear war and the consequent need to make every effort to avert the danger of such a war and to take measures to safeguard the security of peoples.

Believing that the proliferation of nuclear weapons would seriously enhance the danger of nuclear war.

In conformity with resolutions of the United Nations General Assembly calling for the conclusion of an agreement on the prevention of wider dissemination of nuclear weapons.

Undertaking to co-operate in facilitating the application of International Atomic Energy Agency safeguards on peaceful nuclear activities.

Expressing their support for research, development and other efforts to further the application, within the framework of the International Atomic Energy Agency

* Signed at London, Moscow and Washington on 1 July 1968.

safeguards system, of the principle of safeguarding effectively the flow of source and special fissionable materials by use of instruments and other techniques at certain strategic points.

Affirming the principle that the benefits of peaceful application of nuclear technology, including any technological by products which may be derived by nuclear-weapon states from the development of nuclear explosive devices, should be available for peaceful purposes to all Parties to the Treaty, whether nuclear-weapon or non-nuclear-weapon States.

Convinced that, in furtherance of this principle, all Parties to the Treaty are entitled to participate in the fullest possible exchange of scientific information for, and to contribute alone or in co-operation with other states to, the further developments of the applications of atomic energy for peaceful purposes.

Declaring their intention to achieve at the earliest possible date the cessation of the nuclear arms race and to undertake effective measures in the direction of nuclear disarmament.

Urging the co-operation of all states in the attainment of this objective.

Recalling the determination expressed by the parties to the 1963 Treaty banning nuclear weapon tests in the atmosphere, in outer space and under water in its Preamble to seek to achieve the discontinuance of all test explosions of nuclear weapons for all time and to continue negotiations to this end.

Desiring to further the easing of international tension and the strengthening of trust between States in order to facilitate the cessation of the manufacture of nuclear weapons, the liquidation of all their existing stockpiles, and the elimination from national arsenals of nuclear weapons and the means of their delivery pursuant to a treaty on general and complete disarmament under strict and effective international control.

Recalling that, in accordance with the Charter of the United Nations, States must refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the purposes of the United Nations, and that the establishment and maintenance of international peace and security are to be promoted with the least diversion for armaments of the world's human and economic resources.

Have agreed as follows:

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 induce any non-nuclear-weapon State to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices.

ARTICLE II

Each non-nuclear-weapon State Party to the Treaty undertakes not to receive the transfer from any transferor 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

1. Each non-nuclear-weapon State Party to the Treaty undertakes to accept safeguards, as set forth in an agreement to be negotiated and concluded with the International Atomic Energy Agency in accordance with the Statute of the International Atomic Energy Agency and the 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 nuclear explosive devices. Procedures for the safeguards required by this article shall be followed with respect to source or special fissionable material whether it is being produced, processed or used in any principal nuclear facility or its outside any such 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.

2. Each State Party to the Treaty undertakes not to provide: (a) source or special fissionable material, or (b) equipment or material especially designed to prepare 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.

3. The safeguards required by this article shall be implemented in a manner designed to comply with article IV of this Treaty, and to avoid hampering the economic or technological development of the Parties or international co-operation 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 safeguarding set forth in the preamble of the Treaty.

4. Non-nuclear-weapon, State 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 Energy Agency. Negotiation of such agreements shall commence within 180 days from the original entry into force of the Treaty. For States depositing their instruments of ratification or accession after the 180 day period, negotiation of such

agreement shall commence not later than the date of such deposit. Such agreements shall enter into force not later than eighteen months after the date of initiation of negotiations.

ARTICLE IV

1. Nothing in this Treaty shall be interpreted as effecting 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 articles I and II of this Treaty.

2. All the Parties to the Treaty undertake to facilitate, and have the right to participate in the fullest possible exchange.

ARTICLE V

Each Party to the Treaty undertakes to take appropriate measure to ensure that, in accordance with this Treaty, under appropriate international observation and through appropriate international procedures, potential benefits from any peaceful applications of nuclear explosions will be made available to non-nuclear-weapon States Party to the Treaty on a non-discriminatory basis and that the

charge to such Parties 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 weapons States Party to the Treaty so desiring may also obtain such benefits pursuant to bilateral agreement.

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.

States to conclude regional treaties in order to assure the total absence of nuclear weapons in their respective territories.

ARTICLE VII

Nothing in this Treaty affects the right of any group 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 co-operate in contributing alone or together with other States of international organisations to the further development of the applications 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 VIII

1. Any Party to the Treaty may propose amendments to this Treaty. The text of any proposed amendment shall be submitted to the Depository Governments which shall circulate it to all Parties to the Treaty. Thereupon, if requested to do so by one third or more of the Parties to the Treaty, the Depository Governments shall convene a conference, to which they shall invite all the Parties to the Treaty, to consider such an amendment.

2. Any amendment to this Treaty must be approved by a majority of the votes of all the Parties to the Treaty, including the votes of all nuclear-weapon States Party to the Treaty and all the Parties which, on the date the

amendment is circulated, are members of the Board of Governors of the International Atomic Energy Agency. The amendment shall enter into force for each Party that deposits its instrument of ratification of the amendment upon the deposit of such instruments of ratification by a majority of all the Parties, including the instruments of ratification of all nuclear-weapon States Party to the Treaty and all other Parties which, on the date the amendment is circulated, are members of the Board of Governors of the International Atomic Energy Agency. Thereafter, it shall enter into force for any other Party upon the deposit of its instrument of ratification of the amendment.

3. Five years after the entry into force of this Treaty, a conference of Parties to the Treaty shall be held in Geneva, Switzerland, in order to review the operation of this Treaty with a view to assuring that the purposes of the Preamble and the Provisions of the Treaty are being realized. At intervals of five years thereafter, a majority of the Parties to the Treaty may obtain, by submitting a proposal to this effect to the Depository Governments, the convening of further conference with the same objective of reviewing the operation of the Treaty.

ARTICLE IX

1. This Treaty shall be open to all States for signature. Any State which does not sign the Treaty before its entry into force in accordance with paragraph 3 of this article may accede to it at any time.
2. This Treaty shall be subject to ratification by signatory States. Instruments of ratifications and instruments of accession shall be deposited with the Governments of the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland and the United States of America, which are hereby designated the Depository Governments.
3. This Treaty shall enter into force after its ratification by the States, the Governments of which are designated Depositories of the Treaty, and forty other States signatory to this Treaty and the deposit of their instruments of ratification. For the purposes of this Treaty, a nuclear-weapon State is one which has manufactured and exploded a nuclear weapons or other nuclear explosive device prior to 1 January 1967.
4. For States whose instruments of ratification or accession are deposited subsequent to the entry into force of this Treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

5. The Depository Governments shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification or of accession, the date of the entry into force of this Treaty, and the date or receipt of any requests for convening a conference or other notices.

6. This Treaty shall be registered by the Depository Government pursuant to Article 102 of the Charter of the United Nations.

ARTICLE X

1. Each Party shall in exercising its national sovereignty have the right to withdraw from the Treaty if it decides that extraordinary events related to the subject-matter of this Treaty have jeopardized the supreme interests of its country, it shall give notice of such withdrawal to all other Parties to the Treaty and to the United Nations Security Council three months in advance. Such notice shall include a statement of the extraordinary events it regards as having jeopardized its supreme interests.

2. 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 shall be taken by a majority of the Parties to the Treaty.

ARTICLE IX

This Treaty, the Chinese, English, French, Russian and Spanish texts of which are equally authentic, shall be deposited in the archives of the Depository Governments. Duly certified copies of this Treaty shall be transmitted by the Depository Governments to the Governments of the signatory and acceding States.

IN WITNESS WHEREOF the undersigned, duly authorized, have signed this Treaty.

DONE in triplicate at the cities of Washington, London and Moscow, this first day of July, one thousand nine hundred and sixty-eight.

Source: UN Doc. A/Res./2373 (XXIX).

APPENDIX VCHINESE NUCLEAR FORCES

<u>Weapon Systems</u>			<u>Warheads</u>		
<u>Type</u>	<u>No Dply.</u>	<u>Year Dply.</u>	<u>Range (Km.)</u>	<u>Warhead Yield</u>	<u>No. in Stockpiles</u>
<u>Aircraft</u>					
II-28 Beagle(B-5)	15-30	1974	1,850	1x1 bombs	15-30
T4-16 Badger(B-6)	100	1966	5,900	1-3 b.	100
<u>Land Based Missiles</u>					
CSS-1(DF-2)*	40-60	1966	1,100	1x2 KT	40-60
CSS-2(DF-3)	85-125	1972	2,600	1x1-3 MT	85-125
CSS-3(DF-4)	-10	1978	7,000	1x1-3 MT	10
CSS-4(DF-5)	-10	1980	12,080	1x4-5 MT	10
<u>Submarine based Missiles</u>					
CSS-N-3	24	1983	3,300	1x200 KT- 1 MT	26-38
				TOTAL	286-373 =====

Source: SIPRI Yearbook, 1988, p. 44.

Additional Note:

In another version of China's missile programme John Wilson and Xue Litai assessed the ranges of

.....Contd.

Chinese missiles as follows:

DF - 2 - 1,450 Km.

DF - 3 - 2,800 Km.

DF - 4 - 4,800 Km. in 1971, probably increased to
7,000 Km. by 1978.

DF - 5 - 13,000, ICBM

Source: John, Wilson L. and X. Litai, "Strategic weapons and Chinese power: The formative years", China quarterly, (London), December, 1987, pp. 549-51.

CONFIDENTIAL - VA

PAKISTAN'S MILITARY BUILD-UP

	1970-71	1979-80	1987-88
Army			
Manpower	300,000	400,000	450,000
Infantry Division	11	16	17
Armoured Divisions	2	2	2
Independent Armoured Bdes.	1	3	4
Independent Infantry Bds.	1	3	8
Air Defence Bdes.	-	2	3
Artillery Bdes.	-	-	8
Armoured Recce Regts.	-	-	6
Special Services Groups	-	-	1
Army Aviation Squadrons	1	5	6
			+ Ind.Flts.
Navy			
Manpower	9,000	12,000	13,000
Submarines	3	6	8
Destroyers	2	7	6
Frigates/FAC	5	16	29
Air Force			
Manpower	15,000	17,000	17,600
Combat Aircraft	250	256	381
Operational trainers	10	104	127
Total	260	360	508
Fighter Squadrons	12	14+3	20+4
Forces abroad	Nil	Small numbers	30000

Source: Military Balance (IISS, London).