# PAKISTAN'S ISLAMIC BOMB

Maj Gen D K Palit
P K S Namboodiri

## "IF I AM ASSASSINATED . . ."
**Zulfikar Ali Bhutto**

" '*If I am Assassinated*' . . . is a remarkable analytical look at the history of Pakistan, interwoven with a deep and incisive dissection of the events in the entire subcontinent."

*Hindu*

"To nobody's surprise, Mr Bhutto's 80,000-word 'rejoinder' to the prosecution, published as book in this country with remarkable speed, has become an instant bestseller."

*Times of India*

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Born in Calcutta in 1919, Maj-Gen D.K. Palit, Vr. C., F.R.G.S., was educated in India and England. He was commissioned from the Indian Military Academy into the Baluch Regiment in July 1939. During World War II he served in the Burma Campaign; in the 1947-48 Kashmir war he commanded a battalion of the 9th Gorkha Rifles.

From 1949 to 1951 he was Military Attache in the Indian Embassy in Cairo, accredited also to Jordan, Syria, Lebanon and the Sudan. In 1959 he commanded an infantry brigade on the Himalayan Front. From 1961 to 1964 he served as Director of Military Operations at Army Headquarters, New Delhi, before being appointed in command of 23rd Infantry Division (later converted to a Mountain Division) which took part in the 1965 operations on the Western Front.

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# INTRODUCTION

> We know that Israel and South Africa have full nuclear capability. The Christian, Jewish and Hindu civilizations have this capability. The Communist powers also possess it. Only the Islamic civilization was without it, but that position was about to change.
>
> ZULFIKAR ALI BHUTTO

THE STATEMENT quoted above, contained in Bhutto's testament* written from his death cell in Rawalpindi and smuggled out of the country, was the first indication of a Pakistani-Arab ambition to build a nuclear bomb for Islam. But it was the officially-inspired rejoinder to this statement, published in the *Pakistan Economist* of October 1978, that first alerted the world that the main thrust of Pakistan's effort to reach nuclear-weapon capability was not the plutonium reprocessing method (temporarily halted because of France's attempt to renegotiate the treaty for supplying the necessary equipment) but the uranium enrichment route that the Chinese had taken. A number of Intelligence agencies had known about this for months, but the first time that the Indian public heard about this development was when Foreign Minister Vajpayee quietly revealed in the Lok Sabha in March 1979 that India had verified through independent sources of its own that the

*"*If I am Assassinated . . .*", Vikas, 1979.

Pakistani nuclear programme had acquired "non-peaceful" dimensions. Even so, there was a tendency to play the matter down and to keep the issue at a low key. It was not until April 1979, when the United States announced that it was suspending aid to Pakistan in pursuance of the Symington Amendment, that the world's attention was focussed on the Pakistani programme to make nuclear bombs.

During the last few weeks the United States Administration has given a particular twist to this startling development by portraying it as a regional affair and a revival of the old Indo-Pakistani parity syndrome. Following this cue, there has been an orchestrated attempt to pressure India either to subscribe to a joint declaration with Pakistan, abjuring nuclear weapons and agreeing to a mutual inspection, or to join a South Asia nuclear weapon free zone, or to accept the full-scope safeguards suggested by President Carter last year.

In fact, these prescriptions are as dangerous as the disease and constitute an attempt to obfuscate the real issues. One is reminded of the Nixon-Kissinger prescription for the conduct of the Vietnam war, namely, to escalate the conflict by invading Cambodia on the pretext of cutting off the Vietcong's supply lines. At that time too the world media was manipulated to support the venture and nations which were totally committed to support the United States went along with that decision. We are today in a somewhat similar situation.

This book is an attempt to clear the miasma of deliberate misinformation and misperceptions built up over the last thirty-four years by the cultists of nuclear weapons. It is a rebuttal of the conventional wisdom on nuclear proliferation and the folklore developed by the bards of nuclear weapon nations and their allies in various peace movements and arms control lobbies. Our purpose here is to expose the myth-makers and to demolish the myths.

This painful exercise has become necessary because despite the independent line taken by India on the nuclear issue, the conventional wisdom generated by the nuclear weapon nations and their allies, with massive support of the world media at their control, has powerful pockets of influence in India too. How else to explain the lack of perspective in the

treatment of an issue, so crucial for the future of mankind, in our mass media, academia, Parliament and in the government? The Islamic nature of the Pakistani bomb, the Israeli connection, the continuous clandestine proliferation arising out of unsafeguarded military nuclear facilities of the nuclear weapon powers, the failure of the Non-Proliferation Treaty, the underlying implications of the proposal for nuclear weapon free zones, the discriminatory safeguard systems and the dangers arising out of the casual attitude of nuclear weapon powers to nuclear material and its storage, have not been highlighted in this country. Instead, defensive postures have been adopted against the propaganda onslaught—that India should co-operate with the Western powers to contain Pakistani proliferation by subscribing to the N.P.T. This is merely an extension of the arm-twist the sponsors of the N.P.T. have been applying to India for a number of years, despite India's perfectly justifiable objections to the non-mutuality of the terms of the Treaty in respect of nuclear responsibilities. We have found it necessary to explain in detail what India's objections were and how the N.P.T. serves a purpose exactly opposite to what its name implies.

Ours is an attempt to present to the people of India the real significance of the terms of the so-called N.P.T., how they serve not only to legitimise proliferation among the five nuclear powers (vertical proliferation) but also to provide loopholes for selective clandestine proliferation to countries like Israel and South Africa, while withholding the benefits of the nuclear industry from the nuclear unarmed nations.

Ours is not a scholarly work but a presentation of the realities underlying one of the most crucial issues governing the survival of mankind. We do not claim to be unbiased, as many of the advocates of conventional wisdom on nuclear proliferation and arms control claim to do. We are strongly biased, and incensed by the humbug and hypocrisy of all those who write learned theses that ever-increasing nuclear stockpiles of the hegemonic powers build up structures of durable peace and stability, and that not only nuclear weapons but autarchic nuclear technologies are dangerous for the Third World nations. We confess to a sense of outrage in

regard to most of the strategic and arms control literature produced by the military, industrial, academic and media complexes of the West, which in essence—and stripped of all their tendentious arguments—advocates to the world what the late Reverend James Jones recommended to his cultist followers, namely, mass self-annihilation. Nuclear proliferation, vertical or horizontal; provides the means to a similar end—through strategic nuclear miscalculations, or nuclear terrorism.

The rise of terrorism is a matter of acute concern, especially to industrialised countries. But has it not occurred to the leaders of those societies that there may be a correlation between mass terrorism, as adopted by nuclear weapon states as a basic value in the practice of nuclear threats, and its influence on individuals and groups in relation to the rest of society? Nuclear deterrence is based on holding populations of states as hostages with the threat of annihilation. This has come to be accepted as legitimate by the peoples of the nuclear weapon countries and their allies. This only encourages terrorist groups to argue, on the same analogy, that to further their own political aims it is justifiable to hijack an airliner and hold the passengers as hostages; or, in future, to hold a city as hostage with the threat of blowing it up with a nuclear device. If we are to combat the terrorist philosophy successfully, we must first disabuse the minds of nuclear politicians of the legitimacy of strategic nuclear threats.

Throughout the history a nation state has used violence and the threat of violence to achieve its ends; and so have terrorists. What constitutes the difference between the terrorism of yesterday and today, whether practised by the state or terrorist groups, is the quantum jump in the magnitude of violence both are capable of threatening and the perceptible trend towards the *legitimisation* of genocidal terror. In the pre-nuclear age a state could only threaten war and occupation through the use of conventional weapons, when the damage that could be inflicted had finite limits. For example, all the damage inflicted by mass bombing in World War II could be repaired in about a decade. The nuclear weapons today enable a state to threaten to extinguish another society

*totally*. This constitutes the ultimate in threats.

A nuclear war is not a continuation of politics by other means. It is the end of all politics. When the use or the threat of use of nuclear weapons by states comes to be accepted as legitimate by their peoples, it is inevitable that some members or groups highly motivated to achieve objectives different from those of the majority would also develop perceptions that there was nothing illegitimate about similar use of mass violence by them in pursuit of *their* goals. We have an ancient Indian adage: "As is the ruler, so are the subjects." A world which accepts the legitimacy of doctrines of mass annihilation in pursuit of the objectives of certain states is bound to throw up groups which will not flinch from the use of mass terror to achieve their ideological objectives. The day is not far off when a small state like Israel may be threatened with annihilation by a terrorist organisation claiming to have planted, say, four nuclear devices optimally placed and ready to be triggered off by radio command; or an American city may be held to ransom with the threat of a nuclear device planted in the city-centre.

Theodore Taylor and Mason Willrich in their book *Nuclear Thefts: Risks and Safeguards* (published in 1974) had warned about such dangers, but a world brain-washed by conventional wisdom on proliferation has chosen to ignore the warning and failed to pay any attention to clandestine proliferation through the diversion of fissile materials from the military facilities of nuclear weapon powers. Instead, it has allowed its attention to be pre-empted by non-measures such as the London Club, the International Fuel Cycle Evaluation Conference and the United States Non-Proliferation Act, all of which are seen as confidence tricks by nuclear weapon states to obfuscate their responsibilities for clandestine proliferation by shouting from the housetops about the dangers of proliferation.

This book is bound to give an impression of being critical of the United States and Western powers. This has been unavoidable because much of conventional wisdom and folklore on the proliferation issue and nuclear war doctrines have been generated by those countries. Most cases of clandestine

proliferation cited in this book have taken place in the United States and West European countries. It is the United States Congress that has passed the self-righteous Non-Proliferation Act of 1978, and it is the United States Administration that is seeking to apply pressure on India to fall in line with the nuclear proliferation cult. However, our criticism of the so-called Non-Proliferation Treaty and its failure, the futility of nuclear weapon free zone proposals, the safeguards procedures and the hegemonic motivations underlying the policies of nuclear weapon powers applies to all nuclear weapon powers including Russia and China.

It would be a legitimate question to ask why the issues raised in this book have not been debated in the Western world. Here we face a cultural problem.* The nuclear arms race during the last three decades has imposed its culture on large sections of mankind. Compulsions on the leaders of nuclear weapon countries to justify to their own peoples the enormous expenditure involved in sustaining the nuclear arms race have led to their mobilising support not only from their industrial and military establishments but also from their academic, political and information establishments, to propagate the virtues of the arms race. In the process, these nations have come to evolve a "theology" which they propagate with all the fervour of the Apostles, convinced that they alone have the "revealed truth."

In the business of strategic information governments have a virtual monopoly. They conceal vital information and defend it on grounds of security and national interest. They prefer to feed information only to those sympathetic to their point of view. Anyone trying to present both sides of the picture, or a point of view opposed to that of the establishment, finds himself excluded from centres of information. While the government, the armaments industry and the foundations controlled by the establishment pour money into contract research to mobilise public opinion in support of government policies, a researcher, who attempts independent research

**Disarmament, Development and Just World Order,* Centre for the Study of Developing Societies, Delhi, 1978.

which might expose or prove critical of the policies of the government, finds it difficult to obtain funds to support his research. Within the government itself, members of civil and military bureaucracies who do not toe the line find their advancement blocked.

The military-industrial complex in Western countries finances a number of "autonomous" institutions, which put out information and views on subjects of strategic importance that tend to support the armaments culture. The information media give much greater publicity to experts who have travelled to recognition on this route than to those who have striven to work against it. The scoops, background briefings and highly researched stories in the media ultimately owe their origin to one or the other wing of the establishment.

The academics and the media men of the developing world derive most of their information and perspectives from the Western Press. Those who desire to get fellowships and temporary placements in Western academic establishments hesitate to displease them by expressions of dissent. Since recognition by Western academicians and media men is highly valued by their counterparts in the developing countries, the latter do not dare to contradict the doctrines propagated by the sponsor nations of the West.

This infection extends to our country as well—to Academe and to the bureaucracy alike. Bureaucracies of the world—not only of the nuclear and crypto-nuclear weapon states, but even of non-nuclear weapon states—have developed a vested interest in the exercise of the interminable step-by-step negotiations which in effect legitimise nuclear weapons culture and the hegemonic framework. Even our bureaucracy tends to be overawed by the strategic technocracies of the West and, over a period of time, has come to absorb their values, their framework of analyses and their world views.

These are the powerful factors that have tended to inhibit the development of objective analyses of issues relating to nuclear doctrines and nuclear proliferation, not only in the Western world but in India as well. Independent Indo-centric analyses of these issues and national perspectives on them have not developed adequately in this country. The Institute

for Defence Studies and Analyses in New Delhi was established in 1968 for this very purpose, and since then it has contributed significantly to the development of an Indian point of view on nuclear strategic issues. The work of the former Director of the Institute, K. Subrahmanyam, on this subject has received recognition both in India and abroad. Both of us have been intimately associated with the Institute, and Subrahmanyam in particular, since 1968. Our interaction with him in the past is reflected in this book but the views expressed here are our own.

We owe a debt of gratitude to S. Jaishanker, research scholar of the Jawaharlal Nehru University, who generously made available to us the results of his own research, which we have used in the first three chapters.

*New Delhi* D.K. PALIT
*16 May 1979* P.K.S. NAMBOODIRI

# CONTENTS

PART ONE

# THE UNDERCOVER QUEST

# 1

# THE GENESIS OF THE BOMB

AMONG THE many factors which have influenced the course of international politics and diplomacy in the last four decades, the most crucial has been the nuclear one. Ever since the advent of nuclear weapons, whose destructive power was so convincingly demonstrated at Hiroshima and Nagasaki in 1945, they have become a symbol of power and prestige among the nations of the world; and possession of nuclear weapons has been given special status in international power hierarchy. Of late, however, the world has witnessed the emergence of another powerful force, not yet manifest in such forceful terms as nuclear weapons but one which nevertheless affects one-seventh of the world's population directly and even a larger proportion indirectly. This new force is the emergence of Islamic fundamentalism.

Islam has shaped the history of the nations of Asia, Africa and Europe since its birth in the seventh century; and West Asia, the heart of Islam, was not only the birth place of three religions—Judaism, Christianity and Islam—sharing certain common perspectives, but also the arena of intense and continuous struggle between them.

In the first volcanic outburst of Islam immediately following the death of the Prophet, its power and influence swept over

Africa, across Spain and into southern France. In central Europe the flag of Islam reached the gates of Vienna before it was turned back. From the seventh to the seventeenth century Islam spread to new areas in the orient. While militant Islam spread the message up to the banks of the Indus, a more persuasive and gentler Islam won over Malaysia, Indonesia and East Bengal to its faith. However, from the mid-seventeenth to the mid-twentieth century the power of Islam declined: barring Saudi Arabia, Iran and Yemen, the entire Islamic world was colonised by European colonial powers.

Unlike Christianity or Hinduism, where the church and the state are separable and religion is a private affair of the individual, Islam—very much like Judaism—claims that it embraces every aspect of a man's life: personal, spiritual, political, social and religious. Hence, when the muslim nations lost their political power, this had an impact on all other aspects of the muslim's life In the post-colonial era, the resurgence of Islam is to be primarily attributed to Islamic countries being freed from colonial bondage.

Although the decolonisation of Islamic countries started in the nineteen-forties and proceeded to its completion in the sixties, the Islamic world suffered successive humiliations at the hands of Israel during these years—1948, 1956 and 1967. The Islamic reaction to the creation of Israel and the Palestinian diaspora were twofold. Radical and secular Islamic states attempted to meet the challenge of Israel (which was regarded as an extension of American power into the region) through Arab nationalism and Arab socialism. The conservative Islamic states, on the other hand, tried to win over the United States to the Arab cause and lure it with promises of assured oil supply. These two categories of Islamic states were themselves at loggerheads because the conservative states feared radicalism and nationalism more than they did Israeli expansionism.

Following the defeat of Egypt by Israel in 1967, the conservative Islamic nations were able to capture the leadership of the Arabs and build up Islamic solidarity on the platform of anti-Zionism and Islamic fundamentalism. At that time King Faisal of Saudi Arabia was the acknowledged leader of the Islamic world and over a period of time he patiently devised the

oil weapon, so effectively unleashed against the West at the next Arab-Israeli war. He also assisted in building up the Egyptian war machine which eventually enabled President Sadat to launch his offensive across the Suez Canal on 6 October 1973.

Although the war gave initial victory to the Arabs, the final round went to the Israelis, who succeeded in crossing the Suez Canal and encircling the Egyptian Third Army, besides seizing strategic territory in Syria. The oil weapon too was found to be of limited value, even though the crisis was exploited by the Shah of Iran and other members of the O.P.E.C. (Organisation of Petrol Exporting Countries) to push up the oil price more than fourfold. The oil rich Arab countries started piling up enormous wealth but could not use it effectively to put pressure on the United States and West European countries. Arab petro-dollars began to be recycled within the Western monetary system; and so their newly gained wealth made the Arabs a kind of hostage to the West. In these circumstances it appears that conservative Islamic leadership decided to build up influence in the international system by forming an Islamic bloc of forty-three nations and to use their oil wealth to acquire sophisticated arms, mostly from the Western powers. From there it would only need an articulate advocate to lead them to a nuclear ambition—especially as they had come to realise by then that Israel had already built up a nuclear arsenal with fissile material clandestinely obtained from the United States and West Germany.

By then it was beyond doubt that Israel had developed nuclear weapons, though it had not demonstrated its capability by a test explosion. (In the 1973 war, it was reported that Israel had in fact ordered assembly of their nuclear weapons before the United States intervened and dissuaded them from further nuclear action.) The ideology of Zionism, the militant character of the Zionist state and the continuous flow of Western arms into Israel are all considered potent challenges by revivalist Islam, just as the occupation of Jerusalem and the burning down of Al Aqsa Mosque were regarded as deliberate humiliations inflicted on Islam. The unilateral peace treaty concluded by Egypt with Israel under the auspices of the United States has further deepened this sense of frustration and hurt the pride of Islamic nations. It must be borne in mind that underlying this

peace treaty was the Egyptian recognition that Israel had gone nuclear and that a nuclear Israel was unbeatable in war.

Israel, in many ways, is an extension of the United States. In other words, the Zionist state is only the front line of a powerful Zionist lobby in America. Therefore the real power of Israel, both economic and military, lies in the United States. Furthermore, the Arabs know all about the American role in the nuclear arming of Israel. In this situation, it had become a necessity for the Arabs to reach out for the symbol of power in the international system—namely, the nuclear weapon.

Various reports in recent years suggested that Arab leaders had for some years been looking for opportunities to develop a nuclear option. Colonel Gaddafi of Libya naively sent his Prime Minister, Major Jalloud, to China in 1971 on a special mission to buy nuclear bombs from that country. Earlier he had approached President Pompidou of France for the same purpose. Colonel Gaddafi in his frantic search for nuclear weapons even sought India's assistance. Egypt also had sought Indian help in manufacturing nuclear bombs for the Arabs. The Arab quest for nuclear weapons has to be understood in this context—that the Middle Eastern military balance, which had always been predominantly in favour of Israel, was further tipped in the latter's favour by the introduction of the nuclear factor.

The Arabs had adequate money. On the conventional front, there was no problem in acquiring sophisticated weaponry from the West, since the West was only too eager to recycle some of the mounting reserves of petro-dollars by selling back arms. But now conventional weapon superiority was not good enough though even this has persistently eluded them, because the United States has ensured that Israel would always have superiority in this respect: and the nuclear ambition could only be a dream.

Two developments turned this dream into a foreseeable reality. One was the emergence of Zulfikar Ali Bhutto, the dynamic Pakistani leader, as a champion of the Islamic cause. It could not have been difficult for the flamboyant Bhutto to convince the leaders of the Arab world, particularly Saudi Arabia and Libya, that it was possible to develop an Islamic

nuclear option. Secondly, the Pakistani civilian nuclear programme had by then reached such a level of sophistication that it was possible for Pakistani scientists, with the facilities available to them, to embark on a weapons programme, if only it could be supported financially by the oil rich Arab countries.

There is no direct evidence of either Saudi Arabia or Libya or any other Arab country having actively collaborated with Pakistan on the nuclear project; in any case they possess neither the manpower nor the industrial infrastructure to participate directly in a nuclear weapons programme. However, Saudi Arabia and Libya have been the major financial supporters of Pakistan in this venture. Both countries have a common though not necessarily a shared interest in nuclearising the Arab world. The Libyan leader is noted both for his fanatical anti-Zionist fervour and for his claim to the leadership of the Arab world; and Saudi Arabia considers itself the rightful guardian of a future Islamic bomb because, after all, it exercises guardianship over Islam itself.

The other major development which nurtured the idea of an Islamic bomb was the global proliferation of nuclear technology, materials and components. Most of the components for the fabrication of fissile material are now available in the open market, thanks to the loopholes in the Non-Proliferation Treaty in which the sponsors, the nuclear weapon powers, exempted themselves from all nuclear safeguards. Pakistan, through its nuclear scientists abroad and its covert industrial connections, and the Arabs through their oil and money connections, have considerable leverage in the European nuclear markets to get access to the required materials.

In a parallel effort Iraq appears to have launched a nuclear weapons programme of its own. Although Iraq has signed the Non-Proliferation Treaty, the Iraqis were reported to have bought a Swimming Pool reactor from France which would have enabled them to produce weapons-grade Plutonium. However, on 12 April 1979 the equipment for that reactor, while stored in a warehouse in a southern French port awaiting shipment, was mysteriously blown up, presumably by Israeli agents.

Let us consider how an Islamic bomb could be manufactured

under present circumstances. The bomb could be either a plutonium device or a uranium one. Recent evidence shows that Pakistan has been simultaneously pursuing both routes. Although Pakistan's attempt to get a nuclear reprocessing plant from France for chemical separation of plutonium from spent fuel has been temporarily halted, it has come to light that Pakistan had also been buying components for a uranium enrichment facility. It may also be looking for clandestine means to acquire fissile material by sale or theft, so that it could be readily fabricated by Pakistani scientists into some kind of a crude explosive device. It is not unreasonable to assume that Pakistan has been keeping all the three options open and may be pursuing them all at the same time: (*i*) a plutonium device with fissile material obtained by means of a separation plant, (*ii*) a uranium bomb through an enrichment facility, and (*iii*) fabrication of a bomb with fissile material obtained through clandestine channels.

A Pakistani Islamic bomb will have the following repercussions:

(*i*) Israel would be deterred from carrying out a full-scale invasion and occupation of Arab countries.

(*ii*) A nuclear reprisal by Israel to a concerted Arab offensive would also be deterred.

(*iii*) Oil rich Arab states armed with nuclear weapons would be able to withstand American and other external threats and pressures more easily.

(*iv*) The possibility of sub-national organisations like the Palestine Liberation Organisation (P.L.O.) getting access to Islamic nuclear devices might create enormous uncertainty in the minds of the Israelis which, of course, would be of advantage to the overall Arab cause.

(*v*) A Pakistani nuclear weapon would not only deter India from considering a conventional attack on Pakistan, but it might even deter India from taking any retaliatory conventional action against Pakistan's offensive moves, for instance, in Kashmir.

(*vi*) Nuclearisation of Islam would strengthen the Islamic solidarity of muslim populations all over the world, whether

they are in Soviet Central Asia, Sinkiang, in the Indian sub-continent or elsewhere.

Capability-wise, Pakistan has for long been considered a potential nuclear weapon power; and policy-wise, it has kept out of not only the Non-Proliferation Treaty, but also the Partial Test Ban Treaty. As was to be expected, Pakistan has always created an image of having linked its nuclear policy with that of India. It was easy for Pakistani leadership to convince the Western world that for them keeping the option open was a justifiable reaction to India's nuclear policy. For the United States and its allies this Pakistani reaction became a convenient leverage to apply pressure on India.The advocates of the Non-Proliferation Treaty felt that if India were restrained, both India and Pakistan would remain non-nuclear military powers.

The war of 1973 and the accumulation of petro-dollars changed the scene in West Asia and provided a ready-made opportunity for Pakistan. Bhutto was already convinced that his and Pakistan's destiny lay with the Arab world. There were two reasons for this. Firstly, Pakistan's economic and military connections with the Arab world had been developing significantly even before 1973; and the phenomenal rise in oil price opened up new opportunities for Pakistan to offer its goods and services to the oil rich Arab states. Secondly, the Pakistanis have always aspired to identify themselves with Islamic West Asia; indeed this was one of the basic underlying reasons for the alienation that developed between the east and west wings of the united Pakistan.

Bhutto pursued this Islamic connection vigorously after 1973. He expected a great deal of financial support from the oil rich countries and also possibly expected, through association with them, to gain international political stature. More than that, Bhutto aspired to a leading role for Pakistan in the Islamic world, for which in fact Pakistan was eminently suitable. After all, industrially and technologically, Pakistan had been in the forefront of muslim countries. Militarily, the Pakistani armed forces had a high professional reputation, better organised and armed than most Arab armies. Now Bhutto brought in an

additional dimension. He became the most articulate spokesman for the Islamic countries in the councils of the world.

The genesis of the Islamic bomb can be traced to the vision of Bhutto, for whom it would serve a dual purpose. If Pakistan were to mother an "Islamic" bomb (as distinct from a purely national "Pakistani" bomb) the wrath of the rest of the world would not be directed against Pakistan alone. The Islamic connection would come to the help of Pakistan. Of the five nuclear weapon powers, three (the United States, Britain and France) are critically dependent on Arab oil and, therefore, could not risk antagonising the Arabs. Of the other two, Russia and China, the latter would not oppose the idea of an Islamic bomb because it would also be a Pakistani bomb to act as a check against India and help in countervailing Soviet influence among the radical Arab states. In any case, Pakistan can hope to survive any embargo or other punitive measures the international community can mete out, if it were assured of assistance and cooperation from oil rich muslim countries.

Observers of the Pakistani nuclear scene were not surprised, therefore, when the Indian Foreign Minister revealed in Parliament in March 1979 that the Government of India had learned through its own sources that Pakistan's nuclear intentions were not entirely peaceful, though this was the first ever official admission by the Indian Government that Pakistan was seeking a weapons option. It will be recalled that in November 1978, a Labour Member of Parliament asked the British Prime Minister for information regarding supply of certain materials by a British company to Pakistan. These components, he alleged, could be used to build a gas centrifuge plant for uranium enrichment. Pakistan was reported to have offered the excuse that these components, called "frequency inverters," were bought for use in a textile mill. The Indian Government also revealed that it had come to know about certain clandestine purchases by Pakistan of other nuclear related equipment in Europe. Prime Minister Morarji Desai had earlier written to both President Zia-ul-Haq of Pakistan and Prime Minister Callaghan of Britain about these matters, though to no satisfactory purpose. President Zia promptly replied to Desai reiterating that Pakistan's atomic energy programme was

peaceful. The British Prime Minister replied saying that such transfers of equipment had been banned. Meanwhile, reports indicated that Pakistan had already bought the required components and were in the process of setting up a uranium enrichment plant at Kahuta, near Rawalpindi as a military project, independent of their Department of Atomic Energy. The United States, which had been in the forefront of the crusade against proliferation, could not but react to Pakistan's clandestine attempts to acquire nuclear bomb once it had come out into the open. This they did in April 1979.

The Islamic background of the bomb is particularly important. The Pakistani press and government officials have accused the Jewish lobby in the United States for putting pressure on the Administration to twist Pakistan's arm and have characterised the move as one directed against the Islamic nuclear capability. The United States knows full well that its decision to cut off economic aid, amounting to a paltry $ 85 million in two years, was not going to restrain Pakistan, which would promptly be compensated by its Arab financiers—and indeed this is exactly what happened. So the American gesture was merely a token. The United States also renewed the earlier Kissinger offer of modern fighter aircraft to Pakistan if it gave up the bomb option and opened up all its facilities for international inspection. However, the motive for this American move is to be traced to their obsession that all Pakistani moves are related to its fear of India and an inadequate appreciation of the Islamic nature of the effort, that is, to countervail the Israeli nuclear capability. The way in which the American press has managed this news would tend to indicate that Washington is now engaged in an attempt to obfuscate the anti-Israeli, Islamic motivation behind the Pakistani nuclear effort and thus the American responsibility for proliferation to Israel.

Ever since Pakistan started negotiating for the reprocessing plant, it was obvious to knowledgeable observers that such a plant was not needed for peaceful uses of atomic energy. Plutonium is needed for peaceful uses of a mixed oxide fuel in place of enriched uranium fuel in a reactor or to fuel a fast breeder reactor. The Pakistani atomic energy programme has not reached a stage where it could undertake such programmes:

nor does Pakistan have a reactor that uses enriched uranium fuel. Therefore, the only conclusion possible was that Pakistan was intending to use the reprocessing plant to extract plutonium to fabricate weapons. In his death cell testament* Bhutto has indicated that such was indeed his intention.

The Pakistani concept of their role in the Islamic world is somewhat analogous to the Israeli concept of their role in relation to the Zionist movement. Pakistan, like the Zionist state of Israel, was created for purely religious considerations. Just as the Zionists refused to accept the concept of a federal Palestine, the Pakistanis rejected the idea of a federal India. Just as Israel invoked the Zionist idea and claimed that it represented the Jews all over the world, Pakistan claimed that it spoke for all the Muslims of the sub-continent. Liaquat Ali Khan even claimed in his speeches in the United States in 1949, that Pakistan was the "heart of Asia." Even from those early days Pakistan had an eye on the leadership of the Islamic world. This was the reason why Pakistan found no rapport with Nasser, who developed as a natural and charismatic leader of the Arab world. Nor could Pakistan get along with Sukarno or the Shah of Iran, except during the years of their decline; whereas Pakistani allegiance to Saudi Arabian leadership is based on the consideration that while Saudi Arabia could exercise its spiritual and financial leadership, Pakistan, because of its armed forces and its reserve of trained scientists, other skilled manpower and its population, would be able to emerge as the leading military and technological Islamic state.

Bhutto was quick to perceive the implications of the dismemberment of his country in the context of power balance in the region. He vowed to revive Pakistan from the ignominy of 1971, firstly by building the Pakistan army into "Asia's finest fighting machine" and, secondly, by finding for Pakistan a major place in the Islamic comity of nations. In one of his broadcasts immediately after the formation of Bangladesh Bhutto said that Pakistan should now on look to the West (meaning West Asia) rather than towards the East (India and Bangladesh).

What Bhutto meant by this was that Pakistan had to discover

*"*If I Am Assassinated...*", Vikas, 1979.

a new identity for itself in the Islamic group and turn its back on the Indian sub-continent. So long as the two wings of Pakistan had been tied together, Pakistan remained an Indian Islamic country. It was only by casting East Bengal away that Pakistan could embark on its quest for identity and leadership in West Asia. Furthermore, Bhutto realised that a Pakistan-fabricated Islamic bomb would become an important factor in striving for this leadership. Being the only Islamic country with a relatively well-developed nuclear technology it was easy for Pakistan to cast itself in the role of a leader in technology. Therefore, as soon as Bhutto came to power he instituted an intensive programme of nuclear development. In his own words, Pakistan was on the verge of "full nuclear capability" when he was removed from power.

In fact, Bhutto has charged that his pursuit of an ambitious nuclear programme was the main cause of his downfall. In his testament, Bhutto has said that "foreign forces" determined to deny Pakistan the reprocessing facility conspired to overthrow him. Yet, according to him, if there was one act for which he would be remembered, it would be the agreement with France for the reprocessing plant. He wrote:

> After three years of intense negotiations, the nuclear reprocessing plant agreement was signed between France and Pakistan in March 1976. France was fully satisfied on the safeguards.... The International Atomic Energy Agency (I.A.E.A.) at Vienna confirmed the agreement. The United States representative on the Commission voted in favour of the approval.

Bhutto was convinced that France drew back on the agreement because of the weakness of Pakistan's new military rulers; had he been there to negotiate the deal he would not have allowed this to happen:

> After tantalizing the people of Pakistan for fourteen months, and keeping the Armed forces on tenterhooks, at last General Zia-ul-Haq had to mention in his press conference in Rawalpindi on 23 August 1978, that he had received a

very polite letter from the President of France; but it did not serve the purpose. He said ominously that France wanted modifications in the contract through negotiations. So that is it. The President of France has offered a face-saver, but has not saved the plutonium separating capacity of the Plant. This means the end of the saga. In changing its position, the French Government has evoked the doctrine of *Rebus sic Stantibus.* The French Government concluded the Agreement with a civilian and Constitutional Government, not with a Military and Dictatorial regime. The Agreement was concluded with an elected Prime Minister of international stature who had earned the respect and the confidence of three successive Presidents of France... and not with an incredible Chief Martial Law Administrator who keeps breaking his promises to his own people.

In July 1978, from his death cell in Rawalpindi Jail, Bhutto wrote a letter to President Giscard d'Estaing of France thanking him for his intercession to try and save his life. The French President's office released the letter after Bhutto's execution. Bhutto implied in his letter that France, through its technology and techniques, had been able to face up to the challenges of communism directly. The implication was that Pakistan too was attempting to follow the French example and through its nuclear capability face the international ideological challenges. The letter shows that Bhutto was fascinated by Napoleon and de Gaulle—the first, the conqueror of Europe who attempted to unify it; and the second, the inspirer of the independent French nuclear deterrent. Although many heads of state pleaded for Bhutto's life, it is of interest to note that he chose to write only to President Giscard d'Estaing to thank him for his intercession.

In his testament Bhutto rightly claims that he had been actively associated with each and every development in Pakistan's nuclear programme. As Foreign Minister, as Minister of Fuel, Power and Natural Resources and as Minister in-charge of Atomic Energy, and finally as Prime Minister, Bhutto's contribution to the Pakistan atomic programme was significant. "Now we have the brainpower, we have the nuclear power plant in Karachi. All we needed was the nuclear reprocessing plant,"

he wrote, implying that he intended on getting the reprocessing plant, then to violate the I.A.E.A. safeguards, reprocess the fuel and fabricate a nuclear explosive device.

As far back as 1965 Bhutto had said: "If India builds the bomb, we will eat grass or leaves, even go hungry, but we will get one of our own. We have no alternative." At that stage India was not even thinking of a nuclear explosion. In fact, India was seeking nuclear guarantees from the great powers. Bhutto's statement was a reaction to the commissioning of the plutonium reprocessing plant in India. After 1974 he was convinced that India had indeed embarked on a weapons programme with its nuclear explosion and that it was time for Pakistan to search for technologies and facilities for the bomb programme. The acquisition of the reprocessing facility, he presumably hoped, would open the plutonium road to weapons capability.

It was mainly due to Bhutto's persistent efforts that the Pakistan Institute of Nuclear Science and Technology (PINSTECH) was set up and negotiations for the Karachi nuclear power plant (KANUPP) started. As Foreign Minister to Ayub Khan, Bhutto had urged the sanction of Rs 300 million for setting up of a reprocessing plant. Even as early as those days he seemed to have harboured ideas for Pakistan striving for nuclear capability, and the reprocessing plant was to him the symbol of nuclear capability. In his book, *The Myth of Independence,* written in 1969, he has pointed out:

> All wars of our age have become total wars... and it will have to be assumed that a war waged against Pakistan is capable of becoming a total war. It would be dangerous to plan for less and our plans should, therefore, include the nuclear deterrent.... India is unlikely to concede nuclear monopoly to others.... It appears that she is determined to proceed with her plans to detonate a nuclear bomb. If Pakistan restricts or suspends her nuclear programme, it would not only enable India to blackmail Pakistan with her nuclear advantage, but would impose a crippling limitation on the development of Pakistan's science and the technology.... Our problem, in its essence, is how to obtain such a weapon in time before the crisis begins.

In other words, Bhutto was thinking of nuclear weapons long before India's peaceful experiment. India was the immediate excuse, whereas his thinking was conditioned by his overall perception of war and strategy in the nuclear age—in which context, more than the Indo-Pakistan confrontation, it is the Arab-Israeli one that could lead to a total war. For a person with his flamboyant personality and obvious intelligence it would not have been difficult to persuade the Arab nations to support Pakistan in the development of an Islamic bomb.

The domestic extension of Bhutto's vision of the bomb also merits attention. The introduction of nuclear weapons into the Pakistan scene under his leadership could have diminished the importance of Pakistani Generals and at last caused a shift in the power balance in favour of civilian rulers. It would also have increased his popularity among middle-level and junior officers of the armed forces. To Bhutto, ever suspicious of military coups and military leaders, this would have constituted a cogent argument for acquiring nuclear capability.

Ever since Partition India has been Pakistan's main security concern and India's fast-developing civilian nuclear programme had been viewed with alarm by the Pakistanis —and the alarm must have risen to fever pitch after India's Pokharan explosion. Bhutto characterised it as a "fateful development" and said that "a more grave and serious event . . . has not taken place in the history of Pakistan." He noted that the explosion had "introduced a qualitative change" in the situation between the two countries and that his country would not succumb to "nuclear blackmail."

Bhutto had no doubt about India's intentions in nuclear matters. Immediately after the Pokharan test the Prime Minister of India had written to reassure him that "there are no political or foreign policy implications" of the test and that India still adhered to its policy of using atomic energy solely for peaceful ends. Prime Minister Bhutto's reply to this was typical. He wrote:

> It is a question not only of intentions but of capabilities. It is well-established that the testing of a nuclear device is no different from the detonation of a nuclear weapon. Given

this indisputable fact, how is it possible for our fears to be assuaged by mere assurances, which may in any case be ignored in subsequent years. Governments change, as do national attitudes. But the acquisition of a capability, which has direct and immediate military consequences, becomes a permanent factor to be reckoned with.

In his testament Bhutto has recorded in detail how he pursued the nuclear programme to catch up with India:

> When I took charge of Pakistan's Atomic Energy Commission, it was no more than a signboard of an office. It was only a name. Assiduously and with granite determination, I put my entire vitality behind the task of acquiring nuclear capability for my country. I sent hundreds of young men to Europe and North America for training in nuclear science. I commissioned Edward Stone to build PINSTECH and laid its foundation stone in the wilderness of Islamabad. I negotiated the agreement for the 5-MW Research Reactor located in PINSTECH.... Due to my singular efforts, Pakistan acquired the infrastructure and the potential of nuclear capability. It was not a simple task to catch up the lost time in a poor and underdeveloped country like ours. When I assumed charge of Atomic Energy, Pakistan was about twenty years behind India's programme. When I ceased to be Prime Minister, I believe, that at the most, Pakistan was five to six years behind India.

Bhutto clearly saw in the Islamic bomb a solution to most of Pakistan's basic problems. Once Pakistan was able to achieve a nuclear weapons capability there could be little doubt that Pakistani skilled manpower and technology would be in great demand in oil-rich Islamic nations. Also, he would have easier access to the oil wealth of West Asian nations for Pakistan's technological development. The achievement of nuclear capability would thus be the key to the future prosperity of Pakistan.

Bhutto has been removed from the scene, but his ambitions did not die with him. The acquisition of a nuclear option has quite obviously become the objective of his successors also—the

military rulers of Pakistan. Although France has in the meantime backed out of the agreement on the reprocessing plant, Pakistan is reportedly continuing clandestine acquisition of equipment for the enrichment of uranium. In fact, Zia is understandably in a hurry to do something about the nuclear option to assuage public opinion, which now has access to the revelations contained in Bhutto's testament. What Bhutto clearly wanted to assert, through the medium of the lengthy document written in the death cell, was that he was the one Islamic leader who seriously gave thought to the concept of an Islamic bomb and who brought the Islamic world nearest to having one. His allegation of conspiracy by foreign and domestic forces against him on the nuclear issue was meant to provide a halo around his own head—in that he died a martyr to the cause of Islam in its quest for nuclear capability.

Fifteen years of its atomic energy programme has placed Pakistan in an advantageous position in the Islamic world. Pakistan now possesses a pool of trained scientists and a number of nuclear installations capable of taking up sophisticated projects, provided the resources are available. The basic assumption, underlying the concept of an Islamic bomb, is that Pakistan will provide the main thrust for such an endeavour. A survey of the history of Pakistan's nuclear programme reveals the progress that country has made in this direction, and also the inherent limitations on the development of the technology.

Pakistan's nuclear programme began in 1953, when the Pakistan Atomic Energy Committee was set up. The Committee was entrusted with the following tasks: (*i*) the survey of radio-active minerals; (*ii*) working out a plan for the establishment of an Institute of Atomic Energy in Pakistan; and (*iii*) making recommendations on all matters connected with the utilization of atomic energy.

In 1956 the Atomic Energy Committee was upgraded to the Pakistan Atomic Energy Commission (P.A.E.C.) and the Commission soon made arrangements for the training of a large number of scientists in radio-isotopes and reactor technology. In 1958 it was proposed to set up a reactor for fundamental research and for the production of isotopes; and the 1960–61 budget contained provisions for a research reactor. The reactor

was subsequently set up in 1963 with the assistance of the I.A.E.A. This 5-MW "Swimming Pool" reactor went critical in December 1965.

During President Ayub Khan's rule, but under Bhutto's immediate supervision, special stress was laid on the development of nuclear energy in Pakistan. In the second five-year plan a sum of Rs (P) 46.5 million was earmarked for the atomic energy programme. During the next few years till 1968, Pakistan's expenditure on nuclear development amounted to Rs (P) 324 million.

The P.A.E.C.'s principal research centre is the Pakistan Institute of Nuclear Science and Technology (PINSTECH) at Nelore in Islamabad. PINSTECH is to Pakistan what the Bhabha Atomic Research Centre (B.A.R.C.) is to India; it is designed to be the country's leading research and training centre. The P.A.E.C. has also set up centres of research at Lahore, Tandojam, Jamshore, Karachi and Multan. In 1967 the first batch of radio-isotopes was produced in the PINSTECH, which has since been able to produce a number of radio-isotopes like Potassium-42, Iodine-131, Phosphorus-32 and Sodium-24. Intensive research on the application of radio-isotopes in industry, agriculture and medicine is going on in these centres. The centre at Lahore, established in 1961, has a 14-MW neutron generator, a natural uranium light water sub-critical assembly and a 13,000 curie Cobalt-60 source. Pakistan has also entered into agreements for cooperation in the field of nuclear energy with a number of countries, including Canada, the United States, France and Russia.

Pakistan's first nuclear power plant (KANUPP), having a capacity of 137 MW and located some 15 miles west of Karachi at Paradise Point on the Buleji coast, was built on a turnkey basis by the Canadian General Electric Company and was inaugurated by Bhutto in November 1972. Canada granted a soft loan of $ 23 million and a credit of another $ 24 million to cover the foreign exchange costs of this plant. Japan provided a credit of $ 3.6 million for a turbo-generator.

The reactor uses the less expensive and more readily available natural uranium as fuel and heavy water as moderator. It is a slightly smaller version of India's RAPPI at

Rana Pratap Sagar. This plant is under I.A.E.A. safeguards. Canada abrogated its nuclear cooperation agreement with Pakistan in December 1976 because of Pakistan's refusal to agree to full-scope safeguards. However, the I.A.E.A. safeguards continue to apply.

Another power plant is planned to be set up near the Chashma Barrage in Mianwali district. The plant, which was approved in July 1973, will have a capacity of 500 MW. Although in 1973 it was announced that the plant would be ready in two and a half years, actual allocation for the project was not made until after the Indian nuclear explosion. Till now Pakistan has not been able to negotiate for the plant, because all countries in a position to supply and instal it insist on Pakistan's accepting the full-scope safeguards, which Pakistan has so far refused to do.

In June 1973 the government of Pakistan announced that a plan for nuclear desalination of sea water and the production of energy had been approved. It was also reported that Pakistan had plans to set up a 13-tonne heavy water plant. The above plants have not made much progress.

Pakistan's nuclear fuel resources are limited, despite the optimism of Dr Munir Ahmed Khan, Chairman of P.A.E.C., that Pakistan would not only be "self-sufficient" in uranium, but would also be able to export it. Deposits of uranium have been noted in Gilgit, Dera Ghazi Khan and Southern Punjab. For the extraction of uranium, a pilot plant with a capacity of 100 pounds a day has been set up in Lahore. Work on a fuel fabrication facility which was started with Canadian aid is also reportedly progressing. The fact remains that from available evidence, Pakistan has neither the potential nor the resources to sustain an active nuclear power programme. Pakistan's ostensible plans for the future include the construction of eight reactors in the 1980s and sixteen more during the 1990s. The finances for these twenty-four reactors, according to the P.A.E.C. Chairman, were expected to come from "friendly West Asian countries," the World Bank and internal sources. This ambitious programme is based on the assumption that the Pakistani economy will absorb the power from one nuclear plant every two years in the eighties and

every year thereafter. It is quite obvious that a programme of the above magnitude is beyond the reach of Pakistan.

Dr Munir Ahmed Khan is an ardent advocate of an ambitious nuclear power programme. In matters of energy sources Pakistan has the following constraints: low consumption of energy but a large potential requirement in the future; abundant hydro-electric potential; and tight foreign exchange availability for imports. Considering the non-nuclear energy sources available in Pakistan, particularly hydro-electric potential, it is clear that an enhanced nuclear energy programme is not economically viable to that country. Its hydro-electric potential can, according to some estimates, place Pakistan even in the position of a power exporter. Furthermore, close friendship with the O.P.E.C. enables Pakistan to import oil at subsidized rates, and natural gas could also be imported from Iran at comparatively low price. Thus, Pakistan's decision to go in for a massive power reactor programme was certainly not based on economic considerations.

Bhutto's theme that all other civilizations and ideologies, except Islam, have the nuclear bomb, has a powerful emotional appeal and one which would find favour with almost every Muslim who has pan-Islamic fervour. Islam has had to struggle over centuries against Christian and Judaic civilizations; and atheistic communism is anathema to believers in such an orthodox faith. Muslims have a sense of fellowship in the concept of the *millat*. For these reasons, the acquisition of nuclear bombs by any Islamic country, on behalf of Islam, has a powerful appeal. A nuclear-armed Islamic state may vitalise the psychological links among Islamic societies, though this in turn might lead to an erosion of loyalty to their own country of origin and residence. In other words, while strengthening Islamic solidarity around the world, reliance on a common nuclear strategy based on an "Islamic" bomb could weaken the unity and cohesion of national societies. At the same time, the possibility of fissile material from Pakistani sources being passed on to groups like the P.L.O. should be seriously considered. If, for instance, the P.L.O. were to threaten Israel with nuclear action, in whatever form, the existence of an

Islamic bomb would add credibility to such a threat. And Israel would not be in a position to retaliate to the primary threat, as P.L.O. has no state of its own and will therefore be undeterrable in nuclear terms.

# 2

# PAKISTAN AND THE ISLAMIC WORLD

RECENT PAKISTANI writings emphasise the existence of an organic link between Pakistan and Islamic West Asia. Such formulations however are patently opportunistic; when it suited Bhutto he also highlighted Pakistan's heritage from the Indus Valley civilisation. In the course of the past year there was a vigorous debate in Pakistan between those who sought to emphasise ethnicity and those who put Islam first. The former very rightly pointed out that if the concept of the *millat* is to be interpreted as covering all muslim nations, and the *umma* as embracing all believers, then there should be no international borders among muslim states; a single Islamic state should stretch from Morocco to Pakistan. Furthermore, Arab oil wealth should be available for the benefit of all Muslims instead of being fed into the Western monetary system.

It is obvious that in practice the term *millat* is analogous to the term "christendom" and does not signify that all Muslims belong to a single state or society. Moreover, as in the case of Christianity, Islam too is divided among a number of sects—Shias, Sunnis, Fatimites, Ismailis and others; and there are the Ahmadiyas, who are not even accepted as Muslims by the orthodox.

As mentioned earlier, Islam has been resurgent since the decolonisation of the muslim countries. Today they are trying to come to terms with the modern world, in which technology dominates the everyday life of the people. At the same time Islam, as interpreted by the traditionalists, encompasses not merely private values and beliefs but every aspect of a believer's life, with no separation between church and state. The traditionalists tend to view this non-separation of the secular and the spiritual as a manifestation of strength in the body of Islam. It might as well prove to be a source of weakness.

Islam has been nurtured in a tradition of integration of state and church: this was the origin of the Caliphate. However, Islam did not remain a monolithic faith but branched off into a number of sects and traditions, though they still maintained a central creed. The more the *ulemas* are able to fall back upon their traditions the greater will be the divergence between the different schools and sects. An Islamic ecumenism will be possible only if state and church become separated and the various sectarian beliefs become adjusted to the modern world. Hence there are reasons to doubt whether revivalism in Islam would contribute significantly to unity among Muslims. In Europe, revivalist Catholicism and Protestant faiths once resulted in thirty years of religious strife; it was the end of the Thirty Years War that marked the beginning of modern European nation states liberated from the stranglehold of the church.

There are indications that there is a continuing struggle between traditionalists and modernising forces in various muslim states. In countries like Algeria, Syria, Iraq, Democratic Yemen and Afghanistan the modernising forces have the upper hand. In countries like Indonesia, Malaysia and even Bangladesh, where Islam had blended with age-old local traditions and ethnic values, revivalist Islam is viewed with some reservations. In Indonesia, the relationship between the state and Islamic traditionalists has been strained over a period of time. In Bangladesh, the traditionalists were considered collaborators with Pakistan during the war of liberation. In Egypt, Nasser had to wage a relentless struggle against the

Muslim Brotherhood. Even in Iran, where the revolution led by the Ayatollah Khomeini succeeded so spectacularly. the secularists and the traditionalists are yet to join issue on what should be the role of the Islamic clergy in the day-to-day affairs of the citizens and the state.

The revivalism of Islam has already started causing turbulence in various muslim states. Recently, large-scale riots in Turkey between the Sunnis and the Ahlawis (Shias) necessitated the imposition of martial law. The rise of Shia Islam in Iran has already created fears among the Sunni minorities such as the Kurds, Baluchis and Turkomans. At the same time, it has also led to reverberations in Shia areas in Iraq and the Gulf Emirates. There appears to be a possibility that the emergence of Shia Islam in Iran may lead to a rival centre of Islamic ideology in competition to Saudi Arabia. In Pakistan, where the Shariat laws are being introduced, the *zakat* and *ushr* will be imposed on the Shia minority, which forms 20 to 25 per cent of the population. The Shias have declared that these steps are not in consonance with the *Fiqah Jafariah* governing the Shias but are based on the *Fiqah Hanifiah* which guides the Sunni tradition.

It is interesting to note that the Egypt-Israeli treaty evoked strong feelings among the Arabs only—not among muslim states as a whole. Palestine is an Arab nationalist issue and till 1967, when the leadership of the Arab cause was taken over by Saudi Arabia, it was projected as a nationalist and human rights cause by Nasser. Palestinians themselves did not consider the issue as an Islamic one. In fact, there are many Christian and Marxist Arabs in the forefront of the struggle. There are differences between the muslim states themselves: among the frontline states, Egypt follows Fatimite Islam and Syria is a Sunni state but ruled by the radical Baath Socialists with an Ahlawi (Shia) leader in Assad. It is, therefore, not surprising that the reactions of the non-Arab muslim states to the Egypt-Israeli treaty have been muted. The next Islamic Conference may pass strong resolutions on it, but in practice the non-Arab muslim states are not likely to take positions on the Egypt-Israeli treaty which would alienate either Egypt or the Western powers, particularly the United States.

Islamic solidarity, as already explained, does not mean erosion of interests of the ruling elite in the promotion of the interests of the *millat* as a whole. When Muslims in Bangladesh were massacred in hundreds of thousands, the Muslims of the world looked the other way. They did not raise their voice because the massacre was being carried out by muslim Pakistanis. When Palestinians were killed during the Black September of 1970 in Jordan, there were no protests from the Islamic world. General Zia-ul-Haq was at that time serving King Hussein and was in charge of planning the operation against the P.L.O. Nor was there a whisper when hundreds of thousands of Indonesians were killed following the Gestapu Coup.

The solidarity of the muslim countries is exhibited only against non-Muslims and never relates to intra-muslim affairs. In other words, the solidarity as exhibited in Islamic conferences is not a sign of strength of Islamic cohesion but a convenient way of papering over their deep differences and their inability to achieve cohesion and unity. The oil riches of the Arab states are being recycled in the Western monetary system enabling the United States Government to transfer sophisticated arms to Israel on favourable financial terms. The Arab countries have not been able to enforce the boycott clause in regard to dealings with Israel on American companies. These limitations to Islamic solidarity and pan-Islamism have to be clearly understood in analysing Pakistan's relations with other muslim countries and its commitment to Islamic causes.

Pakistan did not readily identify itself with the anti-Zionist or Arab cause during the first twenty years of the confrontation. When the Baghdad Pact was formed Pakistan joined it but the Arab states as a whole boycotted it. (Nuri-as Said's Iraq was an exception but it did not remain an exception long; following the revolution of 1958, Iraq withdrew from the Pact.) To replace the Baghdad Pact came the Central Treaty Organisation (CENTO) pact—but this was a pact between non-Arab muslim countries—Turkey, Iran and Pakistan. At the time of the Anglo-French-Israeli attack on Egypt in 1956, Pakistan was very lukewarm in its support to Egypt because

Pakistan was a member of the pro-Western military alliance. This was the occasion when Pakistani Premier Suhrawardy derided Nasser's Egypt with his remark: "Zero plus zero still remained zero."

So long as Nasser's appeal as a pan-Arab leader prevailed, Pakistan had very limited interaction with the Arab world. It was with the decline of Nasser's prestige and the rise of the conservative appeal of King Faisal of Saudi Arabia that Pakistan's involvement with the Arab world became increasingly intimate. In other words, Pakistan, along with other conservative muslim states, served the Western purpose of countervailing the Arab socialism of Nasser and strengthening the line up of conservative muslim states behind the leadership of Saudi Arabia. What was evident in Pakistan's conduct in the fifties and the sixties was not its commitment to Islamic solidarity but its commitment to its Western allies. While most of the muslim countries adopted non-alignment as their foreign policy, Pakistan along with Iran and Turkey continued as the loyal brigade—military allies of the West. The Iranian revolution has now led to the dissolution of CENTO, but Pakistan still continues with the bilateral military alliance with the United States concluded in 1954 and 1959.

Is it possible to consider Pakistan as a conservative muslim country which rejected Nasser's Arab socialism and was firmly committed to Islamic fundamentalism? In the only free and fair election held in Pakistan in 1970, the overwhelming majority in West Punjab and Sind voted for the Pakistan Peoples' Party of Bhutto which campaigned on the slogan *"Roti, kapda, makān"* (bread, clothing and shelter). In the North West Frontier Province and Baluchistan, the secular National Awami Party (N.A.P.) polled the largest single bloc of votes. The parties which campaigned on communal platforms were roundly trounced. Even in the 1977 elections it is generally conceded that Bhutto's P.P.P. was the majority party, though there was rigging in a few constituencies. It is doubtful whether even today in a free and fair election, the fanatical Islamic parties would be able to secure a majority. It is, therefore, very difficult to construe that the people of Pakistan desire an Islamic State. On the contrary, evidence

points out that they are for an economic and social order which is left of centre. Yet, Pakistan itself was created on account of religious considerations; and, in the end, Bhutto himself succumbed to Islamic pressures and introduced prohibition, stopped gambling and legislated that the Ahmediyas were a non-muslim minority.

The fact is that there are contradictory facts in Pakistan's attitude to Islam. Bhutto talked of socialism at home and espoused Islamic cause abroad. There could hardly have been a more secular person than Jinnah, but he insisted on dividing India on the basis of religion. Most of the rulers of Pakistan did not adopt Islamic tenets in their personal living. How does one reconcile the very non-Islamic private life-styles of Pakistani leaders (with a few exceptions like Zia-ul-Haq) and their public espousal of Islamic causes? To trace the origin of this paradox, one has to go back to the creation of Pakistan itself.

Pakistan was not created as a result of the demands of the people living in the area now forming Pakistan. It was imposed on them by the British and the muslim minority of India. In the 1946 elections the provinces which today constitute Pakistan did not vote for the Muslim League, which advocated Pakistan. The Muslim League won its seats in East Bengal and in the Indian minority provinces under the separate electorate system. On the basis of their all-India numerical strength in the central legislature, the League pressed for and got Pakistan with the connivance of the British. This will explain why the Muslim League did not survive as a significant Party in Pakistan. This is the reason why the Baluchi leader Ghaus Baksh Bizenjo has questioned the viability of Pakistani ideology. There is today a feeling in Pakistan that if India had not been divided, the three smaller provinces—Sind, the N.W.F.P. and Baluchistan—would have enjoyed greater political, economic and linguistic autonomy under the Indian Constitution than they do under the Pakistani Constitution of 1973.

In Pakistan the main beneficiary of partition was West Punjab. In the initial period following the partition, the Mujhahirs from India tended to dominate: Jinnah and

and for the maintenance of the equipment. Instead of their oil wealth giving them the necessary leverage, the West Asian countries became hostages to the Western powers because of the absorption of all that wealth into the Western monetary system, with its ever present threat of sequestration.

After the oil embargo of 1973 senior American officials have issued warnings from time to time that the economy of the industrialised countries would not be allowed to be jeopardised by their oil supply being interrupted and withheld. There have been not-so-subtle hints that they had even prepared contingency plans for the seizure of Arabian oil fields, plans in which Israel had a major role to play. Although the Arabs had posed counter-threats of blowing up the oil fields, it was the Americans who would in the end be the suppliers of the necessary explosives and the equipment; it was their personnel who would have to carry out the necessary sabotage operations! The Arab threat was not very credible.

The war of 1973 highlighted the helplessness of the West Asian Arabs. In conventional military terms Israel seemed invincible; and the Americans appeared determined to maintain Israel's superiority over the combined Arab forces. It was obvious after the war that Egypt's will to fight had weakened; it had borne the burden of confrontation far too long on the basis of not very adequate aid—in any case not adequate both to develop Egypt's economy as well as to sustain an armaments programme to match Israel. The Arabs also knew that Israel had been able to acquire weapons grade uranium from the United States and had hijacked two hundred tons of natural uranium in trans-shipment. This should have led them to wonder if an "Arab equaliser bomb" could be fabricated by adopting similar methods of obtaining fissile materials clandestinely. This would seem to be the right time for Bhutto to have converted the idea of an "Arab bomb" to an "Islamic bomb" by placing Pakistan at the service of the Arab States.

The very intimate economic interaction which started between the Arab countries and Pakistan after the oil price rise perhaps helped in promoting this proposal. Pakistanis came to play a dominating role in the banking industry in West Asian countries, particularly in Saudi Arabia and the Gulf Emirates.

They were also employed at top and middle levels in various departments of the governments of these countries—including memberships in purchase and supply missions to a number of West European countries. They were also employed as middle-level project leaders in various industrial projects then under construction in West Asian countries under the supervision and consultancy arrangements of Western technical firms. It was this intermeshing of banking channels, purchase missions and middle-level consultancy in West Asian countries that provided Pakistan with the opportunity to buy unobtrusively in West European markets the materials and equipment needed for its uranium enrichment plant. The money spent was not Pakistan's money; remittances did not go through Pakistani banking channels—but through West Asian firms. The entire operation was masterminded by Pakistan in utmost secrecy and behind a wall of extraordinary security-precautions. Even Bhutto, writing his last testament from his death cell, while taking all the credit for the plutonium project, kept quiet about the uranium enrichment project. For all his faults, he was too much of a patriot to give the uranium deal away, however much he needed the kudos in the last hopes of saving his neck.

In fact it was Zia's anxiety to rebut Bhutto's accusation that he was neglecting the nuclear capability programme that gave the world the first public hint about Pakistan's enrichment plans. On 23 October 1978 the *Pakistan Economist* published a well researched article entitled "Reprocessing Leaves One Cold" in which it contended that the easier way to nuclear capability was uranium enrichment and not plutonium reprocessing. It was obvious that the article was officially inspired; it could not have been published without official blessing. This article, together with British Member of Parliament Allaun's question in the House of Commons on the sale of frequency inverters to Pakistan, first alerted informed observers and the intelligence agencies of the world that Pakistan was pursuing simultaneously the uranium enrichment path and the plutonium programme. More than that, the publication of the article displayed a degree of confidence on the part of the Pakistani authorities that they had reached a stage of procurement of equipment and materials at which the rest of the world could

and reputation make it eminently suitable as a guide and manager to these Islamic forces in leading them towards military modernisation.

During Indo-Pakistani conflicts of 1965 and 1971 there were transfers of arms and equipment from some of these countries to Pakistan, notably from Iran and Jordan. But they were of symbolic significance only and did not influence the course of the war in any crucial way. However, that was mainly because of the lack of resources on the part of the suppliers. Now that many of these countries have considerable arsenals of sophisticated military hardware, it is possible that Pakistan might receive substantial amounts of equipment from them in the event of another round against India.

Military collaboration between Pakistan and friendly muslim countries in West Asia ranges from training assistance to joint ventures in armament industries. In recent times there has been a determined attempt on the part of the Arabs to build up their own armament industry so that they can reduce, if not eliminate, their dependence on external sources.

An Arab organisation for coordinating and planning arms industries already exists but because of intra-Arab rivalries and the lack of a well-defined common approach, these efforts at Arab armament industrialisation have not yet got off the ground. In this situation Pakistan hopes to jump in with both feet and offer to collaborate with these Arab states in setting up joint ventures in Pakistan itself. This would appeal to the feuding Arab states because tucked away in Pakistan they would not be hampered by Arab rivalries; and for Pakistan this would be another bonanza. Its own defence industry has not been greatly developed—because of the inherent limitations of the general industrial infrastructure in the country. These disadvantages would be overcome by exploiting the resources of the Arabs.

A meeting of the Defence and Foreign Ministers of Islamic countries held in London in February 1979 was a major landmark on the road to defence cooperation among Islamic countries. It was the first-ever international conference of this nature—on "Defence and the Muslim World." The conference declared its firm belief that there was an urgent and important

need to evolve and implement a new and comprehensive defence strategy for the entire Islamic world.

A communique issued after the conference appealed to all the governments and peoples of all muslim countries to:

*(i)* resolve to build a new Islamic society within their respective jurisdictions—a society free of all kinds of injustices and exploitation, and within which the entire fabric of life would be based on the principles and precepts of the Holy Quran and the Sunnah;

*(ii)* to make every effort to preserve their ideological integrity and territorial independence and to recover all their lands seized by foreign elements through aggression and the use of force;

*(iii)* to unite and pool all their resources for their own benefit as well as for the benefit of the world community; and

*(iv)* to establish close and active cooperation among themselves with a view to defending their national security interests and promoting and accelerating economic, social, industrial and technological progress in their respective countries.

It urged all muslim countries to:

*(i)* share their resources ungrudgingly and selflessly for the security of every muslim country and for the economic, social and technological development of the muslim world as a whole;

*(ii)* cooperate in the pursuit and advance of knowledge and technology and in the education and training of their peoples; and

*(iii)* set up joint industrial ventures in the field of defence production for the attainment of collective self-reliance.

The conference welcomed the establishment of the Islamic Institute of Defence Technology and called upon muslim countries to cooperate with the Institute to strengthen its activities. It recommended that the Institute should embark on a programme of preparing studies on subjects having a

bearing on the security of muslim countries and engage in research documentation and preparation of literature for the benefit of muslim countries.

Other recommendations of the conference were:

*(i)* to appoint a commision of muslim experts to study and recommend ways and means of promoting cooperation between muslim countries on matters concerning their individual and collective defence;

*(ii)* to suggest that the Institute organise and hold conferences and seminars in muslim countries on issues concerning their defence and security and hope that the governments of muslim countries would cooperate and assist the Institute in this effort;

*(iii)* realising that muslim countries need to make rapid progress in the field of defence sciences and technology, to recommend that they intensify their efforts to acquire defence technology from wherever it is available, on the best terms;

*(iv)* to set up a data bank of muslim technical experts throughout the world and utilise their knowledge and expertise for the development of defence organisations and establishments in muslim countries;

*(v)* to take suitable steps to plan and implement such industrial and technological projects as are necessary to support and *sustain effective deterrent defence systems;*

*(vi)* to commission the Islamic Institute of Defence Technology to prepare a feasibility report for the establishment of an Islamic Bank of Strategic Materials to ensure adequate and regular supplies to the defence industries of muslim countries;

*(vii)* conscious of the fact that Islamic ideology lays down the code of conduct in both peace and war, to call upon the defence training establishments of the muslim countries to familiarise their students with the Islamic concept in the most comprehensible manner;

*(viii)* to recommend that the military thinking of the *Umma* be unified into a single military doctrine and that this doctrine and all the basic theories pertaining to matters of Islamic defence must draw their inspiration from the Holy

Quran and Sunnah; and

*(ix)* to recommend the formation of the committee of military experts fully qualified in the field of Islamic studies to prepare a comprehensive study of the above issues and the possibilities of their realisation.

Pakistan was an active participant at this meet. It is useful to note that General Zia's introduction of *Shariat* laws in Pakistan coincided with the London meeting. Significantly, the conference took note of this development in Pakistan with appreciation and sent greetings to President Zia. Soon after the meeting the Chairman of Pakistan's Ordnance Factories, Maj Gen Syed Ali Nawab, announced in a radio broadcast that following the decision to set up an Islamic Bank for Strategic Materials, a sum of 100 million pound sterling has been earmarked for the purpose.

Although there is no evidence of any defence treaty between Pakistan and any of its muslim friends in West Asia (except under CENTO, the British sponsored pact) there is sufficient evidence of close military collaboration with many. Abu Dhabi's main air wing, its 32 Mirage aircraft, is commanded, flown and maintained by Pakistani Air Force personnel and there can be little doubt that there must be *quid pro quo* for this arrangement. There are about 5,000 troops in Saudi Arabia alone, including a large training group for the Royal Guards, which is mostly officered by Pakistanis. Pakistani forces were reported to have been deployed in Jordan after the Camp David agreement and on the Yemen border at the time of border clashes in February 1979. At one time there was 1,000-strong contingent in Jordan, most of whom were withdrawn after King Hussain's liquidation of the P.L.O. in September 1970. Libya has about 1,450 Pak military personnel. The Libyan Air Force Academy at Zawia is mostly manned by Pakistanis as also the Mirage Fighter Operational Conversion Unit and most of the two transport squadrons of the Libyan Air Force. Libya's four Mirage squadrons are 50 per cent manned by Pakistani pilots and technicians. 250 Army and 100 Navy personnel are also stationed in Libya Oman employs 100 Pak troops fighting in the Dhofar

insurgency. There could be arrangements between some of these countries and Pakistan for making available forces on mutually agreed basis.

Pakistan has already demonstrated its willingness to commit troops to action on behalf of its Arab friends. According to one Western observer, Pak pilots flew military missions in the war of 1973 on behalf of Libya and Syria. Another report said that Pakistani planes even took part in actual air operations on the Syrian front.

As for training facilities in Pakistan, military personnel from friendly Arab countries are trained at the Staff College in Quetta. A Mirage training school, which has ten Mirage 3Ds gifted by Arab states, is in operation. The new Mirage-rebuild facility at Kamra in the Frontier Province handles aircraft from many countries of West Asia.

These are tremendous achievements by the Pakistani armed forces and they were possible only because of the phenomenal growth of the Pakistani armed forces themselves, whose overall strength now is 429,000 men, compared to 324,000 in 1970–71. It also has a reserve of 500,000 men who can be mobilised at short notice.

The above account will show that there is close collaboration between Pakistan and some of the Arab states in military fields; however, that does not mean that either in conventional strategic requirements or in the nuclear weapon project there is any mutuality of security interests. The Arab states need the nuclear deterrent primarily against Israel; Pakistan's motivation in going in for the bomb is quite different—to draw abreast of India, which has demonstrated its nuclear explosive capability; to use it as a strategic equaliser (to offset its conventional weakness vis-a-vis India); and, lastly, to acquire the technological leadership of the Islamic world and to draw upon Arab oil wealth to develop Pakistan rapidly.

While Pakistan may not have been consistently friendly with the progressive muslim countries it has always been steadfast in its friendship with the conservative countries, particularly Saudi Arabia. However, till now there is no historical parallel to draw upon regarding a joint international collaboration to produce a common nuclear capability among nations which

do not share a strategic objective or threat. In this case none of the collaborating parties is under nuclear threat. The Israeli nuclear threat could only be directed against the front line states (Syria and Jordan) and even this is now doubtful, after the signing of the Egypt-Israel treaty. Neither Libya nor Saudi Arabia faces a nuclear threat; nor does Pakistan. Hence the Islamic bomb has to be viewed as either a means of nuclear offensive, or as a symbol of prestige. The offensive use may be aimed against Israel, in a surprise first-strike attack which may wipe out the Israeli Air Force and nuclear arsenal; or it could be against India.

What makes the Islamic bomb particularly dangerous for international peace and security is that all major parties involved are unstable states. This factor too has a number of implications which will have to be gone into in detail. It would however appear that the Pakistanis, who maintain Libyan Mirages and officer the Saudi National Guard, may be hoping that though the project may be financed by Saudis and Libyans it is they who would be in possession of the bomb and constitute the force which will deliver it, wherever the target may be. In other words the bomb will be Islamic but the finger on the trigger will be Pakistani.

# 3

# THE ISRAELI CONNECTION

IN ORDER to fully understand the Arabs' compulsion towards the acquisition of nuclear capability as well as to obtain an insight into the intricacies of the black and "grey" markets in nuclear materials so nimbly exploited by Pakistan in recent years, it is necessary to go back a few years and examine the clandestine development of Israel's nuclear weapons programme. It is only then that the whole sordid story of the underground nuclear mafia becomes exposed and the hypocritical non-proliferation stand of the Western powers stands revealed.

Nuclear ambition was born in Israel almost from the day the new state was proclaimed. Although the hurriedly mustered forces of the Palmach and other Israeli groups, organised pell-mell into an Israeli defence force, managed to defeat the vastly superior, regular Arab forces of Egypt, Jordan, Syria and Iraq, it had been a touch and go affair. The fact that they had gained large tracts of territory earmarked to the Arabs in the Partition plan did not lull the Israeli leaders into a false sense of security. They realised only too well that they had won the war only because of the acute internecine squabbles among the Arab states and an almost total lack of co-operation between their national armies. From the earliest

days they realised that a small underpopulated state like theirs, surrounded by the Arabs who outnumbered them by more than 100-to-1 and possessed infinitely greater natural resources, would always suffer from crippling strategic weaknesses. Even given full support from the United States they would still suffer from inherent disadvantages because they could never afford to fight a long-drawn out conventional war: it would stifle the economy of the state. And if full American support were ever withdrawn, for whatever reason, the state would lie exposed and at the mercy of the Arabs. It is for this reason that from the very beginning Israeli leaders began to consider the advisability of going nuclear, because a nuclear deterrent would be the only recourse if a conventional war turned critically against them.

Because of the close, emotional links between Israel and the large community of Jewish scientists abroad, particularly in the United States, many of whom in fact migrated to Israel, the new state "inherited" a high level of nuclear technological ability. This was evident from the way the country launched out on a determined nuclear programme even before political conditions had settled down in the new-born state. As early as 1948 a survey was conducted in the Negev which revealed the presence of uranium among phosphate deposits. At about the same time a number of Israeli scientists were sent to Western countries for training in nuclear physics. In 1949 a Department of Isotope Research was set up which was expanded shortly into the Department of Nuclear Research. The Israeli Atomic Energy Commission came into being in 1952, though it was publicly mentioned only in 1954. Significantly, both these were kept under the Defence Ministry. In 1953 a Franco-Israeli agreement was concluded permitting exchange of nuclear information and contracting for Israeli personnel to be trained in France.

By then, because of its nuclear heritage from the world community of Jewish scientists, Israel had already developed advanced technology in heavy water and uranium enrichment processes. As early as 1953 the Israelis developed a new method for processing low grade uranium, as also a new process for heavy water production. Israel transferred these

technologies to France in return for reactor technology. (Later the Israelis reportedly perfected the laser isotope separation method for uranium enrichment with the assistance of West Germany and France.)

France and Israel developed close rapport throughout the nineteen-fifties, mainly because fear and dislike of Nasser brought them close together. Israel feared Nasser because he was the uniting factor for the Arabs, particularly the confrontation states. Also, Nasser's Egypt would, as in 1948, always be the main adversary. As for France, Nasser's support for the Algerian freedom movement had been the main factor behind the success of the Algerian rebels. The French never forgave him for that.

The Dimona reactor was conceived, planned and executed with French help. The exact contracts, commitments and objectives of this deal have never been published. In turn "the high level reached by Israeli scientists in physics and nuclear energy, was an asset for the French in developing their *force de frappe.*"* It is thus possible that the Israelis, through Jewish scientists in other countries, helped France in its development of nuclear capability, in return for the offer of the Dimona reactor.

In the mid-fifties an intense debate ensued on the nuclear issue between the doves and the hawks within the Israeli establishment. Prime Minister Ben Gurion and General Moshe Dayan put their entire weight behind the pro-bomb policy. However, it appears from available evidence that the decision to go nuclear was probably taken after the 1956 Suez crisis. In that crisis Israel realised that Britain and France had clearly ceased to be global powers and could not be depended upon for its security: and the United States, under General Eisenhower's presidency, turned against Israel, forcing it to withdraw from the Canal line to its original borders.

In 1956 Israel signed a contract with the United States for a "swimming pool" type reactor (a simplified type whose safe performance allows close approach to the reactor core under controlled conditions. This reactor was set up in Nahal

*Cervenka and Rogers, *The Nuclear Axis,* Friedmann, London, 1978.

(I.R.R.-I) and went critical in 1961. However, though it provided training facilities to Israeli scientists, the I.R.R.-I did not contribute to the overall nuclear programme. Till 1965 it was under American inspection and then became hooked to the International Atomic Energy Commission's safeguards.

It was Israel's second reactor, the I.R.R.-II at Dimona, that was destined to play a crucial role in Israel's nuclear ambitions and has since become the focus of Israel's nuclear weapons effort. The decision to build the reactor appears to have been taken simultaneously with the decision to go nuclear. The ensuing controversy resulted in the protest resignation of six out of seven members of the Israel Atomic Energy Commission. In fact, two among them formed a Committee for the Denuclearisation of the Israeli-Arab Conflict, to oppose Israel's nuclear weapon efforts and to mobilise public opinion. The decision to build the Dimona reactor was taken sometime in the late fifties and France agreed to provide the reactor. Franco-Israeli nuclear co-operation was a decade old by then. France agreed to supply a 24 MW reactor to Israel, without any strings attached to it as regards safeguards. The deal was kept secret from the public for over two years.

A mist of secrecy enveloped the reactor from its very inception. Discussions concerning the I.R.R.-II were not allowed even in the Knesset (Israeli Parliament) and members were not allowed to visit Dimona. However, by the early nineteen-sixties Dimona had attracted the attention of the outside world. The United States formally demanded from Israel a statement of its nuclear intentions. Israel officially denied that it had made or had any plan to make nuclear weapons. However, in return for generous arms supplies, the Americans procured the right of inspection. American scientists made periodic visits to Dimona to ensure that no plutonium separation plant was constructed. However, it is now known that these visits were too infrequent to have any effect.

The Dimona debate had its impact on the Israeli Atomic Energy Commission also. Throughout the whole of the nineteen-fifties the Commission had been placed under the control of military hawks committed to the bomb. Ernst

Bergmann, the Chairman, represented this lobby. He headed the Commission from 1957 to 1966.

Then, under the Prime Ministership of Levi Eshkol, there was a temporary change in policy. A freeze was imposed on research activities connected with the military application of nuclear energy and Bergmann was removed from the Commission. Another reform was the transfer of the Commission from the jurisdiction of the Defence Minister to that of the Prime Minister. This detraction, however, continued only for a short while. Soon after the 1967 war the military once again dominated the activities of the Commission. General Moshe Dayan set up an Advisory Committee on General Research and Development, with Bergmann as the co-ordinator. This body, along with another (also military-dominated) Scientific Development Project Division, came to have the final say in the nuclear programme of Israel.

Meanwhile, in the mid-sixties, the United States had offered a desalination plant to Israel. The Americans felt that apart from giving economic benefits to Israel, this joint venture would enable the United States to cut through the atmosphere of suspicion and distrust concerning the nuclear issue and to establish an international inspection system for nuclear facilities in West Asia. A feasibility study for the plant was carried out during 1965–67 and a bill introduced in Congress on the subject. The United States had attached a condition to it—the acceptance of international safeguards over the Dimona reactor. The fact that the Israelis rejected the plant, which involved an American investment of $40 million and which could have been highly beneficial to the country's economy, is indicative of what they proposed to do with their atomic energy establishments at Dimona.

Till now there has been no indication to the possession by Israel of a reprocessing plant. However, a number of "hot" laboratories to handle toxic material have been set up near the two reactors at Nahal Soreq and Dimona. Since the number of spent fuel rods available for reprocessing is small, these can be reprocessed in the hot laboratories.

Recent disclosures show that during 1968 Israel purchased 200 tons of uranium from West Germany and disguised the

purchase as a case of "disappearance." The ship carrying the uranium was "hijacked" to Israel, under a pre-arranged plan. It is quite likely that this natural uranium is being used to fuel the Dimona Reactor and make weapon grade plutonium. Israel also managed to "divert" enriched uranium in quantity from the United States, and stole some nuclear material from Britain and France as described later.

By 1966 Israeli scientists had secretly started assembling the bomb. The semi-official West German army monthly *Wehrtechnik* in June 1976 said that soon after Ben Gurion's departure in 1963, his successor Eshkol discovered that the Defence Minister Moshe Dayan had defied the decision of the National Security Council to freeze all military-oriented nuclear research, and had ordered the assembling of the bomb under conditions of strictest secrecy. It stated that Eshkol had frozen the process, but that Dayan had been able to persuade Prime Minister Eshkol that "Israel had no other choice."

*Wehrtechnik* further disclosed:

> Western reports believe that by 1963 Israel had staged a subterranean test in the Negev and that soon afterwards preparations for Atom Bomb materials started. In 1969, everything was settled but production of the bomb did not start right away. Israeli scientists concentrated on the development of new methods to cut production time of the bomb.
>
> Dimona in the Negev is not only guarded by troops but also has a highly developed electronic surveillance system and radar screens, working round the clock. It is strictly forbidden for all planes including Israeli war planes to fly over the area. During the six-day war, an Israeli Mirage-III went astray in the area. The plane was ruthlessly shot down by an anti-aircraft missile fired by their own people. When a Libyan civilian aircraft inadvertently approached the area, Israeli fighters tried to force the plane to change course. When this proved to be of no effect, the plane was shot down. 108 of the 113 passengers were killed.*

*Cervenka and Rogers, *op. cit.*

The Israeli connection with the Pennsylvania firm,Nuclear Materials and Equipment Corporation (NUMEC), was an eminently successful Israeli operation on which the American authorities have preferred to remain silent. In 1957 a Jewish chemist, Dr Zalman Shapiro, established the firm NUMEC in Appollo, Pennsylvania. Soon NUMEC began getting a steady flow of government contracts, most of them concerning the transformation of highly enriched uranium into fuel for naval reactors and for an experimental space rocket. During the United States Atomic Energy Commission inspections in 1964 it was found that about 200 pounds of enriched weapon-grade uranium was missing—unaccounted for. (Later the amount missing was found to be around 500 pounds.) The disappearance of the enriched uranium was explained away as having got buried inadvertently with other nuclear waste. It so happened that during the investigation the corporation records were lost in a fire. The A.E.C. investigator in charge of the inquiry was preparing a "blistering" report on NUMEC, when he suddenly decided to resign and accepted a job offer from Shapiro. In 1967 Shapiro sold NUMEC and took up a job in Westinghouse (which owns most of the nuclear power plants in the United States). He had to pay over a million dollars in penalties for the missing uranium.

Two facts connected NUMEC with Israel. First, Shapiro was a Jewish scientist who maintained intimate connections with Israel. Second, there existed an agreement for co-operation between NUMEC and Israel under which NUMEC served as the technical and training consultant and procurement agency for Israel in the United States.

During the existence of NUMEC, that is, between 1957 and 1967, Israel might have been able to smuggle out something like 500 pounds of enriched uranium from the United States. Yet, investigations on the NUMEC affair was hampered at every stage. The Federal Bureau of Investigation (F.B.I.), which is the authority dealing with theft of nuclear material, initially refused to investigate. Strict secrecy was maintained over the proceedings of the A.E.C. meetings as well as later investigations by the F.B.I. and the C.I.A.

NUMEC was not the only nuclear adventure of Israel. A

special commando unit was trained by Israeli Intelligence to raid foreign nuclear installations and material consignments. In France they raided a 25-ton truck carrying uranium, disabled the driver and made away with the material. A similar operation was carried out in England, but what they got this time was only the "yellow cake" form of uranium. Uranium was also obtained from France and West Germany through faked hijackings. The West German freighter *Scheerberg* was "raided" by commandos and 200 tons of "yellow cake" was removed. A deal with the West German government had already been made before the incident. Similarly the Israeli commandos managed uranium "thefts" from France in exchange for money and scientific information.

The "Israeli connection" clearly shows that the so-called champions of non-proliferation—the nuclear weapon states—themselves are the real proliferators. In the NUMEC deal, not only the A.E.C., the F.B.I. and the C.I.A., but the President of the United States himself was involved in the cover-up. As reported in *Time* magazine, it has been revealed that President Johnson told his Intelligence Chiefs not to pursue the NUMEC affair. Furthermore, he even ordered them to keep it secret from the Secretary of Defence and the Secretary of State that the C.I.A.'s assessment was that Israel had already made atomic bombs. (In 1968, the C.I.A. had concluded, from studying Israeli bombing techniques—the toss-bombing method—and after checking up on missing fissile materials, that Israel was on the verge of going nuclear.)

It will be seen that the United States has taken what can perhaps best be described as an ambivalent view of Israel's nuclear programme. At first it was concerned over the possible introduction of nuclear weapons into the highly explosive Middle East situation. Hence, in 1961, after a meeting with President John Kennedy, Prime Minister Ben Gurion was persuaded to agree to the demand that American scientists be allowed to make periodic visits to the Dimona reactor. Only two such visits took place before Ben Gurion was succeeded by Levi Eshkol in 1963. Thereafter, for a while, Eshkol agreed to a system of regular visits by American scientists. As a *quid pro quo,* the United States agreed to supply Hawk missiles to Israel, for the first time.

The American assumption at that time was that Israel would be able to maintain its overall superiority over the Arabs through massive supply of conventional weapons from the United States. However, to Israelis the nuclear weapons symbolised not only a strategic potential but also the means of obtaining a great measure of independence from the United States, which would have otherwise wielded tremendous influence on decision made in Tel Aviv. For the United States, the NUMEC affair showed that its own nuclear safeguards were ineffective and that it could not dissuade even one of its closest allies from going nuclear. Successive Presidents appear to have reconciled themselves to a nuclear Israel and so decided to keep the whole affair hushed up.

We have already seen what help West Germany has given to Israeli nuclear development. Scientific co-operation between the two countries started in the late fifties when West German nuclear scientists established contacts with scientists of the Weizmann Institute in Israel. West Germany sponsored research projects and financed installations like the 6-MV Tandem Van-der-Graaf accelerator, which helped Israel in setting up a department of experimental nuclear physics at the Weizmann Institute. In 1963 informal scientific exchanges and contacts were consolidated by a joint agreement; and the Minerva Society, a subsidiary of the West German Max Plank Gesellschaft, was founded to sponsor scientific co-operation with Israel.

Another country with which Israel has established nuclear rapport in recent years is South Africa. In August 1977, soon after the United States and Soviet spy satellites discovered that South Africa was all set to explode its first nuclear device in the Kalahari desert, the American magazine *Newsweek* (12 September 1977) wrote: "Some U.S. intelligence analysis concluded that the bomb the South Africans had planned to set off actually had been made in Israel." There are a number of reasons why Israel is suspected to have played a role in South Africa's nuclear programme. The bonds between the two countries were aptly summed up by the Cape Province paper* of the National Party:

* *Die Burger*, 29 May 1977.

> Israel and South Africa have much in common. Both are engaged in a struggle for existence and both are in constant clash with the decisive majorities in the United Nations. Both are reliable foci of strength within the region, which would, without them, fall into anti-Western anarchy. It is to South Africa's interest that Israel is successful in containing her enemies; and Israel would have all the world against it if the navigation route around the Cape of Good Hope should be out of operation because South Africa's control is undermined. The anti-Western powers have driven Israel and South Africa into a community of interests which should be utilised rather than decried.

Following the 1973 war, when the whole of black Africa broke off relations with Israel in an effort to isolate it, South Africa opened its markets to the Israelis. There has since been an expansion of cooperation in many fields including the military. The culmination of this new-found friendship was Prime Minister Vorster's visit to Israel in April 1976. Vorster's announcement at a press conference that Israeli-South African cooperation had established relations in a number of ventures, including scientific and technical cooperation, triggered off speculation that this involved nuclear cooperation.

However, very little is known about areas of cooperation in the nuclear field. In matters of nuclear technology both Israel and South Africa operate in conditions of utmost secrecy. Two factors are, however, noteworthy in this connection. One is the possibility that Israel, which has since apparently stopped clandestine operations for nuclear material, might be obtaining uranium from South Africa. The second factor is the setback both countries have recently received to their self-assumed invincibility. The South Africans and the Israelis had always regarded themselves as superior in skill and arms to their racially inferior neighbours. The myth of Israeli superiority was broken in 1973 and that of the South Africans in Angola in 1976. "The military and psychological setbacks to both countries contributed to the importance of a strategy based on a nuclear 'deterrent'."*

*Cervenka and Rogers, *op. cit.*

South African-Israeli co-operation is likely to expand further in the near future and would be worth observing closely. Both have a stake in acquiring nuclear weapon capability as deterrents against hostile neighbours and as a means of enhancing their prestige in the world. And both are getting more and more isolated internationally.

In view of the fact that the Arab—or Islamic—ambition to get nuclear bombs stems directly from the fact that Israel has got them, it would be appropriate at this stage to examine the history of Israel's early perceptions of its need for a nuclear deterrent and to assess its would-be nuclear posture.

In the four wars that Israel has fought with the Arabs so far, it has always been able to maintain superiority in conventional arms—thanks to the assistance of the Soviet Union and Czechoslovakia during the first Arab-Israeli war, to France in the second and to the United States in the third and fourth rounds. At present Israel's conventional arms superiority is of an order the Arab nations cannot hope to match for the next decade or two despite their lavish purchases of arms from abroad. However, Arab resources today are virtually boundless, and time is on their side.

The fact that Israel had plans to acquire nuclear weapons as early as in the late fifties and the early sixties, and perhaps had reached nuclear weapon capability in the late sixties, shows that they were always aware of the resource-potential of the Arabs and considered their military superiority over them as something ephemeral. It is for this reason that they began to consider going nuclear, because only nuclear capability could give them an overwhelming advantage over the Arabs for all time to come. (Presumably, like the Western nations, Israel never seriously considered the possibility that the Arabs would also go nuclear.)

Israeli nuclear strategy was influenced by the following factors:

(1) As a result of Israel's close association with France in earlier days, and with the United States subsequently, Israel seems to have been strongly affected by the pre-emptive nature of French and (earlier) American strategies (which

are explained in greater detail in Chapter 5).

(2) There is the ever present fear among Israelis of being let down by their Western allies and, therefore, having to safeguard national security all on their own. (The American attitude towards the Anglo-French-Israeli invasion of Suez in 1956, the weakness displayed by Britain and France and the strong stand taken by President Eisenhower after the Sinai was occupied by Israel were the reasons for such fears and the search for self-reliance.)

(3) The Soviet threat of use of rockets against the British and French during the Suez invasion of 1956.

(4) The constant use of nuclear weapons by the Western powers as "international currency of power."

(5) The need to convey a message to the Arabs that in no circumstances would they be able to defeat Israel militarily—thereby forcing them eventually to make peace with Israel.

Israeli leadership in the first three decades was dominated by Jews of Eastern European stock. These leaders had undergone the traumatic experience of anti-Semitism in Germany and Eastern Europe in the first four decades of this century and then had had to face Hitler's "final solution." They had lived through the days when members of the Establishment in Britain, France and the United States, with honourable exceptions like Churchill and Roosevelt, looked upon Hitler as a deliverer from the Bolshevik menace and had turned their eyes away when the Jews had had to flee Germany. What the Israeli leaders remembered about the United States of those days was not its friendship but its refusal to throw open its doors to Jewish immigration. The Jews realised that it was a combination of these factors that was partly responsible for the holocaust, in which six million Jews perished in Hitler's gas chambers.

The Israeli view of world affairs was shaped by this experience and it has taught them the lesson of self-reliance. After all that has happened Israelis cannot afford to take risks and place reliance on others for their security, even if the guarantors of security happen to be the leaders of the international system.

Israeli leadership also understands that, to a considerable extent, Western support for Israel derives from a guilt complex arising out of the murder of six million Jews in Europe. This understanding makes them aware that as time passes and as the new generation of people born after World War II take charge of the destinies of the Western countries, this guilt consciousness will be eroded. In fact, this is already happening. Among the younger leaders of Europe and America there is a growing tendency to weigh the economic consequences of alienating the Arabs against the guilt-debt the Christian nations owe to the Jew. The support Israel received from Britain and France in the third and fourth Arab-Israeli wars compared to that in the second war was markedly on the decline. In fact, France came out in favour of the Arabs both in the 1967 and 1973 wars. Given this burden of history one can understand, even if one cannot justify, Israel's reaching out for the means which it considers would ensure its security, namely nuclear weapons.

Towards the end of the fifties came the great debate in France on how far that country should rely on the American nuclear shield. The articulate exponent of the French nuclear position was General Pierre Gallois. The Gallois thesis had two major propositions. First, it was argued that the more the number of nuclear weapon nations in the world the greater would be the uncertainty caused to each one of the nuclear weapon powers, thus causing self-deterrence in each. Secondly, it was argued that the strategic objectives of a country like France need not necessarily always coincide with that of the United States and, therefore, it (France) could negotiate its way out in a nuclear confrontation between the United States and the Soviet Union using its nuclear weapons as a bargaining chip. A further development of this French thesis (which is dealt with in greater detail in the next chapter) is that the United States, threatened with nuclear destruction, would not be a credible guarantor of the security of France in a situation where only the interests of Europe were threatened and not necessarily those of the United States also.

These arguments evidently had a powerful impact on Israel's thinking. Israel presumably concluded that if it developed nuclear weapons it would be able to exert deter-

rence not only on the Arabs but, to a degree, also on other nuclear powers who may think in terms of intervening in an Arab-Israeli war. Furthermore, Israel would become independent of the United States (or any other nation) in regard to its own security.

During the fifties the Americans themselves popularised the thesis (a thesis constantly reiterated even today) that faced with a vastly superior conventional force the threat of first use of nuclear weapons would be an adequate deterrence. While in the American-Russian case this doctrine was subsequently invalidated when both sides came to possess nuclear weapons, the original doctrine is still valid where the numerically weaker side has the nuclear capability, as in the case of Israel.

Although in the second and third Arab-Israeli wars, Israel did not have to face the prospects of the Arabs achieving conventional superiority, in the fourth war this possibility came as a shock, and an agonising reappraisal followed the end of hostilities including a reappraisal of the degree of external help that might be forthcoming in a future age of oil and energy crises.

We have seen that after the 1956 war President Eisenhower had threatened the Israeli Prime Minister with a cut-off in economic and military aid unless they vacated the Sinai. The Israelis thereafter came to conclude that in future they must, in their turn, have sufficient leverage on the United States to prevent such undue pressure again being brought to bear upon them. This assumption seems to have been borne out by events following the 1967 war, because the United States continually failed to get Israel to vacate the occupied areas.

During the Suez crisis Soviet Prime Minister Bulganin had, in his letter to the British and French governments, implicitly conveyed a threat of nuclear strike. Even today it is difficult to come to any definite conclusion whether or not this constituted a credible nuclear threat; and whether this was one of the considerations that compelled the British and the French governments to cease their operations in the Suez Canal zone, leaving the Israelis in the lurch. However, it is quite possible that this threat had its own impact on Israeli perceptions.

Some American strategists have argued that Israel's arming

itself with nuclear weapons would deter the Arabs for ever. The various arguments that were put forward for an Israeli deterrent have been summarised by S. Flapan* as follows:

(1) The danger to Israel's existence does not stem from nuclear weapons (which the Arabs do not possess) but from a massive build up of conventional arms.

(2) Israel could not assure its security in this arms race with the Arabs who outnumber them in manpower and have far greater material resources.

(3) In conventional arms Israel cannot use its qualitative advantage—the higher levels of science and technology. The nuclear option would utilise these advantages, exert deterrence and thus force the Arabs to come to terms with Israel.

(4) Even in case the Arabs go nuclear, a balance of terror would rule out conventional war in future.

(5) Israel believes that the spread of nuclear technology is inevitable and therefore the sooner it embarked on it the better.

(6) Until the Arabs reach the nuclear level, Israeli nuclear deterrent will prevent a new war, strengthen Israel and perhaps even coerce the Arabs into peace.

Unlike other nuclear weapon powers, which adopted an orthodox nuclear strategy of *declaring* their weapon capability, Israel decided to resort to a strategy of *uncertainty*. Enough hints were thrown out to create strong presumptions as to Israel's nuclear capability, but Israel did not actually declare itself formally as a nuclear weapon power. Such uncertainty has helped Israel to earn nuclear weapon status without having to face hostile international reactions.

An openly declared nuclear weapon posture by Israel would first of all seriously imperil the non-proliferation strategy of its major ally, the United States. This, in turn, might bring strong American pressure on Israel to renounce its weapon option.

*S. Flapan, "Israel's Attitude Towards the Non-Proliferation Treaty," *Nuclear Non-Proliferation Problems,* S.I.P.R.I., Stockholm, 1974.

The United States may even have been forced by the anti-proliferation lobby in the Administration and the Congress to withdraw economic, political and military support from Israel.

Secondly, a declared nuclear policy by Israel would have driven the Arab countries to acquire a nuclear deterrent, with enough justification, and it would have been difficult for the great powers to restrain them. The Arabs would have been justified in seeking nuclear material and other requirements from whatever sources they could—from the socialist countries or from a terrorist organisation (since, according to them, a nuclear Israel posed a greater threat to them than communists and terrorists). The Israelis must have also calculated that if the Arabs did succeed in developing their own nuclear weapons—as is now likely to happen—Israel would not be accused of having introduced nuclear weapons into the West Asian arena first.

Instead the Israelis resorted to a convenient formula which was even recently reiterated by Foreign Minister Moshe Dayan during his visit to Kathmandu—that Israel would not be the *first* to introduce nuclear weapons into the Middle East. The formulation would mean the adoption by Israel of what is popularly known as the "last wire" concept. This envisages that if a nuclear bomb is not actually assembled, but kept unarmed, then technically it is not a nuclear weapon. Israeli strategists have written extensively of this concept of the "bomb in the basement" and the use of uncertainty in regard to nuclear posture.

This strategy is somewhat opposite to India's present nuclear policy. "India in her nuclear posture is a mirror-image of Israel. Israel has held no tests but suggests that she could be a nuclear power; India had exploded a nuclear device but says she has no military intentions."* The Israeli case also shows that in diplomatic calculations the ability to manufacture nuclear weapons is equally important as, or more important than, possession of nuclear weapons.

Israel's attitude towards the Non-Proliferation Treaty and

*John Maddox, *Prospects for Nuclear Proliferation,* Adelphi Paper, I.I.S.S., London.

nuclear free zones is at best ambivalent. While insisting on its official stand that there was no nuclear weapon in the Middle East and that Israel would not be the first to introduce them, the Israeli government rejected all plans for a nuclear free zone in West Asia as irrelevant to the real threat originating from the conventional arms race.

The N.P.T. has generated intense debate in the near-nuclear countries and it has become a major political and foreign policy plank in many countries. Surprisingly, in Israel the N.P.T. has not created any such academic or political discussion; Israeli public opinion does not seem to be interested in it. There is hardly any discussion in the Israeli press about the Treaty. The Knesset does not debate it nor does the government make its stand vis-a-vis the N.P.T. clear.*

Israel's nuclear involvement has been discussed in some detail here because it is from the various Arab reactions to Israel's presumed nuclear capability that the idea of the Islamic bomb took shape. In fact, there has been no evidence of a concerted Arab reaction to the nuclear interpolation in West Asia. For instance, during the war of 1973, at which time Israel almost certainly had a stock of bombs in its "basement," the Joint Arab Command which was established to co-ordinate offensive strategy between Egypt and Syria did not at any time consider the possibility of an Israeli nuclear reposte. We now suspect, from reports available since the end of the war, that at one stage orders had been issued by the Israeli high command to prime the bombs at Dimona: this might well have happened within the first 48 hours of the start of the war, when the head-long tank advance of the Syrians brought them almost up to the Daughters-of-Jacob Bridge, the pass-point into the heartland of Israel. Yet, there was no Arab consciousness of or preparedness for such a development.

The earliest nuclear try-on by an Arab state was in Libya. However, it would be an overstatement to claim that Colonel Gaddafi's first attempts to buy a bomb was the start of an intended nuclear dialogue with Israel. It was more the reaction of a loner and an opportunist—and its simplistic approach never had a chance. Even if Gaddafi had succeeded in buying

*Flapan, *op. cit.*

a device or two from an underground source, his possession of them would not necessarily have indicated the start of a nuclear strategic dialogue with Egypt. It would have been a flash-in-the-pan achievement with a hit-or-miss objective. It was only when Gaddafi gave up the idea of a Libyan bomb that he (in the absence of sufficient rapport among the Arab states to organise a project for a common "Arab" bomb) reportedly went along with Bhutto on the "Islamic" bomb idea.

The first credible endeavour by an Arab state to start a strategic nuclear dialogue with Israel was made by Egypt—credible because, firstly, Egypt was a confrontation state and, secondly, it already possessed a delivery system that could reach targets in Israel. It will be remembered in this connection that during the late fifties and early sixties Egypt had secured the technical services of a number of right-wing West German rocket experts (former employees of the Nazis) to build rockets for Egypt. After that attempt failed it was the Russians who supplied the Egyptian army with rockets, some of them being capable of carrying nuclear warheads.

One of the attempts Egypt made towards acquiring the necessary nuclear technology was to approach India, but the only reply that could have been sent to such a request was, of course, a lemon—even if gift-wrapped. It is not known whether President Sadat tried elsewhere or not, but it was not long before he came to accept the fact that the bombs of the Israelis, and their technological superiority, which would always keep them in the lead in nuclear matters, made it futile for the Arab powers to continue to hope to defeat Israel in battle. Israel's strategy had payed off—at least as far as its main protogonist was concerned. Sadat went to Jerusalem.

It now appears that Iraq also had made a start towards nuclear capability, though so far nothing definite is known. Although Iraqi territory is not adjacent to Israel, Iraq can be considered as a confrontation state because in every war so far, despite many intra-Arab differences or rivalries, at the first sign of hostilities Iraq has dropped all else and rushed to fight under the Arab colours: its commitment to war has always been total. A nascent nuclear capability in Baghdad would

certainly have started a nuclear dialogue with Israel, but meanwhile the destruction in a warehouse in France of vital nuclear equipment consigned to it has put Iraq's programme in cold storage for the present.

It was in these circumstances of repeated Arab frustrations that Bhutto was able to pick up the broken threads of Arab ambition and, it is reported, persuaded both King Khalid and Colonel Gaddafi that the only solution would be for Pakistan to make an "Islamic" bomb. It is difficult to surmise what arguments he used to convince them of its credibility, though perhaps the main stress was emotional rather than intellectual; and just how, *post facto*, either will control a bomb fabricated in Pakistan only the future will tell. It is likely, however, that an Israeli-Islamic dialogue will start as soon as a credible, deliverable weapon is made available by Pakistan.

# 4

# FAILURE OF THE NON-PROLIFERATION TREATY

NOW THAT we have made a survey of the undercover activities whereby a number of countries, including Pakistan, have acquired or are on their way to acquiring nuclear weapons, it is time to pause and ask the question: how did all this happen and why was it allowed to happen? The general impression is that the non-proliferation movement, ending with the Non-Proliferation Treaty which was signed by 103 nations, aimed specifically at preventing the spread of nuclear weapons. It causes surprise, therefore, to learn that proliferation in fact is taking place freely in the world. As one of the first countries to voice concern on this issue and to sponsor proposals for a non-proliferation treaty, India has been in the forefront of the movement to control the spread of, and finally abolish, nuclear weapons. And yet the very concern that we expressed in general terms at the U.N. has now arrived at our own doorstep. If concerted measures are to be taken to prevent such developments from recurring in the future, it is necessary first of all to understand why the N.P.T. has so miserably failed to promote the purpose for which it was originally designed.

There is a general belief, even among many in this country, that India's refusal to sign the N.P.T. as eventually formulated by the nuclear powers has retarded the universal movement

towards control over nuclear weapons. This is, in fact, what the Western nations have been propagating. The realities of the general effort towards control and disarmament are quite different. In the early years of the nuclear era, several wise and objective plans were formed by the major powers for nuclear weapons control, such as the Disarmament Commission's Plan of 1955 (for a joint effort by five leading nations to place a ban on nuclear weapons manufacture), the Zorin-McCloy declaration of principles of disarmament which remain valid till today, or the Eighteen Nation Disarmament Commission (E.N.D.C.). These were all abandoned, mainly because the nations that did possess the bomb were reluctant to give up the power and prestige they gained from such possession. Eventually, it was to safeguard their continued power and prestige that the big powers sought to promote a treaty which would preserve their predominance in nuclear matters, both militarily and technologically, and prevent all loopholes for any other nation joining the nuclear club *without their connivance.* This was the N.P.T. which finally caused all hope to be abandoned for serious negotiations for general and complete disarmament. It is because India has never abandoned such a crusade that it is unwilling to legitimise the permanency of nuclear dominance in world power play.

In the previous chapter we dealt with instances of nuclear materials finding their way clandestinely to other countries in the late 1960s and 1970s. It was always the nuclear weapon countries that were the sources of such diversions. All of them, together with other industrialised countries of the West, are signatories to the N.P.T., a treaty which is claimed to be designed to stop proliferation of weapon technology and fissile material. The fact that this has not happened raises important questions about the effectiveness of the N.P.T. and the objectives underlying it.

Western media have been propagating for the last eleven years that the N.P.T. has succeeded in preventing further proliferation of nuclear weapons. When this claim is controverted, protagonists of the N.P.T. argue that even if it has not succeeded in stopping *vertical* proliferation (that is, existing nuclear weapon powers making more and more bombs) which

is also an objective of the Treaty, it has at least succeeded in halting *horizontal* proliferation (that is, proliferation to countries outside the nuclear club). Furthermore, the fact that 103 nations of the world have signed the Treaty is cited as a measure of its world-wide acceptance.

The propaganda efforts of the nuclear weapon powers and their allies have been directed against those countries which have refused to sign the Treaty, pointing an accusing finger at them for standing in the way of preventing effectively proliferation of nuclear weapons. The Indian nuclear test of May 1974 was portrayed as having been conducted in defiance of world public opinion (as though the public all over the world approve of the dozens of tests conducted by the nuclear weapon powers every year). In view of such distorted perspectives fed continuously through the Western media, it is necessary to understand the real significance of the Treaty. It is also pertinent, after more than a decade of its existence, to evaluate it and find out how effective it has been in achieving its avowed objectives.

India was a major critic of the N.P.T. at the stage of its formulation, though other countries such as Brazil and Argentina also voiced their reservations of the Treaty on the same lines as India. The impression that India's opposition to the N.P.T. arose from its determination to keep its own nuclear option open is not justifiable. India's objection was that the N.P.T. did not contribute to disarmament.

In the 30 years following World War II, India has been in the forefront of nuclear disarmament efforts. India was one of the first countries to voice concern about the universal threat posed by nuclear weapons. Only months after the thermonuclear explosions by the super-powers, India proposed a comprehensive test ban treaty in April 1954. As early as September 1955, India proposed the establishment of an international body to monitor data on radiation hazards. In fact, at an atomic energy conference in New York in September 1956, India was the first to demand international inspection of nuclear plants producing explosives. And it must not be forgotten that it was India that co-sponsored (with Ireland) proposals for a nuclear non-proliferation treaty in the cele-

brated resolution 2028 of the U.N. General Assembly. The crux of that resolution was to ensure mutuality of obligations as between the nuclear weapon powers and non-nuclear weapon powers. In contrast, let us examine what the N.P.T. as sponsored by the big powers did about "mutuality of obligations."

The operative articles of the N.P.T. are (authors' italics):

*Article I*

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

*Article II*

Each *non-nuclear*-weapon State Party to the Treaty 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 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 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 is outside any such facility. The safeguards required by this article shall be applied on

all source 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 or prepared for the processing, use or production of special fissionable material, to any *non-nuclear* weapon State for peaceful purposes, unless the source or special fissionable material shall be subject to the safeguards required by this article.

(3) The safeguards required by this article shall be implemented in a manner designed to comply with Article IV of the Treaty, and to avoid hampering the economic or technological development of the Parties or international cooperation in the field of peaceful nuclear activities, including the international exchange of nuclear material and equipment for the processing, use or production of nuclear material for peaceful purposes in accordance with the provisions of this article and the principle of safeguards set forth in the Preamble of the Treaty.

(4) *Non-nuclear* weapon States Party to the Treaty shall conclude agreements with the International Atomic Energy Agency to meet the requirements of this article either individually or together with other States in accordance with the Statute of the International Atomic Energy Agency. Negotiation of such agreements shall commence within 180 days from the original entry into force of this Treaty. For States depositing their instruments of ratification or accession after the 180-day period, negotiation of such agreements shall commence not later than the date of such deposits. Such agreements shall enter into force not later than eighteen months after the date of initiation of negotiations.

*Article IV*

(1) Nothing in this Treaty shall be interpreted as affecting the inalienable right of all the Parties to the Treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with 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 of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy. Parties to the Treaty in a position to do so shall also cooperate in contributing alone or together with other States or international 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 V*

Each Party to the Treaty undertakes to take appropriate measures 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* weapon States Party to the Treaty so desiring may obtain such benefits pursuant to bilateral agreements.

*Article VI*

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

*Article VII*

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

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

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

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

(3) The Treaty did not provide for a balance of obligations and responsibilities between the nuclear-weapon states and non-nuclear weapon states. While all the obligations were imposed on non-nuclear weapon states, the nuclear weapon states had not accepted any.

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

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

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

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

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

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

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

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

The events of the past decade have vindicated every one of the objections India then raised. However, there is a great deal of difficulty in the West in understanding India's nuclear policy. As was the case with India's policy of non-alignment, India's attitude towards de-colonisation of Asia and Africa, its policy towards the People's Republic of China, and the socialist bloc generally, it is not surprising that the West tends to misinterpret India's policy in this respect also.

The Preamble of the Treaty solemnly declares the need to make every effort to avert the danger of a nuclear war. It affirms its desire to strengthen trust among states in order to facilitate the cessation of the manufacture of nuclear weapons, liquidation of all existing stockpiles and the elimination from national arsenals of all nuclear weapons. Article VI of the Treaty specifically enjoins that the parties to the Treaty would undertake to pursue negotiations in good faith on effective measures relating to the cessation of nuclear arms race at an early date. They also undertook to actively pursue steps towards nuclear disarmament and to formulate a treaty on general and complete disarmament under strict international control.

Eleven years after the Treaty was formulated, not a single step has been taken by the nuclear weapon powers to negotiate the cessation of the nuclear arms race. Under SALT-I and II, the two superpowers have negotiated ceilings on nuclear

warheads. The current warhead holdings are, however, many times what they were in 1968, when the N.P.T. was signed. In other words, the sponsors of the Treaty have violated it by continuing the arms race at a mutually agreed pace instead of initiating steps to halt nuclear arms race, as required by the Treaty. No nuclear weapon power which sponsored the Treaty seems to be seriously concerned about the cessation of the arms race or nuclear disarmament, let alone general and complete disarmament.

A realistic approach to non-proliferation would have been to start by disabusing participants from the notion that possession of nuclear weapons conferred some kind of prestige or special status to the nuclear powers. In fact, the N.P.T. did just the opposite. By placing all the obligations on the have-not nations and, particularly, by exempting the nuclear weapon powers from even observing the prescribed safeguards, the Treaty accorded them a permanent privileged position in the world community. Furthermore, in pragmatic terms, the Treaty in effect gave them unlimited licence to proliferate nuclear weapons *at their discretion,* because (as we saw in the last chapter) it provided loopholes which they were not obliged to close if they chose not to.

In the last U.N. General Assembly session in September 1978 India, along with other countries, moved a resolution which termed the use or threat of use of nuclear weapons as "crimes against humanity." The United States and the European powers, who happen to be staunch advocates of non-proliferation to other countries, voted against it. Their argument was that N.A.T.O. needed the doctrine of possible first-strike threat to ensure the security of Western Europe against a Soviet attack. Thus, security of West Europe is a justifiable cause for resorting to nuclear weapons. But what about security of other countries, especially non-European third world nations? It is not openly spelt out; but the implied answer is that they have simply to live with insecurity in the face of threats from nuclear weapon countries. This, in fact, constitutes a nuclear version of apartheid.

The "London Group of nuclear suppliers" was formed by the United States, the Soviet Union, Britain, France, West

A number of industrialised nations profess themselves to be non-nuclear powers. They, however, rely on nuclear war doctrines for their security, permit nuclear weapons to be stationed on their soil, allow infrastructural facilities for the conduct of nuclear war (communication bases, air-fields and port facilities) to be developed on their soil, train their troops in the use of nuclear weapons and take part in nuclear war exercises. There are contingency plans for some of these nations to take over 70 per cent of the nuclear warheads stockpiled in their territories in case of war. These nations should more appropriately be termed as "crypto-nuclear weapon nations." They claim to be non-nuclear weapon states because they do not have the title to the nuclear weapons on their soil. This is like a person calling himself a teetotaller merely because he does not pay for his drinks but drinks at somebody else's expense. Such are the countries which have been in the vanguard of propagating the Non-Proliferation Treaty and which have now joined the London Suppliers' Club.

Prime Minister Trudeau of Canada claimed in the U.N. General Assembly's Special Session on Disarmament that Canada was the first country to *give up* nuclear weapons. He also declared that he had ordered that Canadian air-craft should *cease* to carry nuclear weapons. It is a sign of the degree of international cynicism that no one raised the question how in the light of this statement Canada had been claiming in the past to be a non-nuclear weapon nation.

No nation which is a member of a military pact which relies on the use of nuclear weapons has the right to call itself a non-nuclear weapon nation. The non-nuclear weapon nations must first of all renounce reliance on nuclear war doctrines. In the light of the cynical approach of the nuclear weapon powers, who are the sponsors of the N.P.T., and their allies, it is little wonder that the so-called N.P.T. has been only a convenient cover to hide the real intentions of the sponsors and their allies. These intentions have partly been spelt out by Mrs Alva Myrdal, a one-time fervent protagonist of the N.P.T. She says:

This split into two discontinuous categories of "super-

> powers" and "other nations" has not only become more apparent to us during the disarmament negotiations, it has been made even more bluntly manifest by a conscious design on their part. The best example of this is the N.P.T. . . . What we are witnessing today, it seems to me, is the emergence of duopoly of the two super powers in regard to modern technology giving them a more and more dominating hegemony over world affairs.

With the formation of the London Group of nuclear suppliers, it has become an oligopoly of industrialised powers as against the rest of the non-industrialised world.

It is not fortuitous that the five nuclear weapon powers also happen to be the five permanent members of the U.N. Security Council, decided upon at Yalta in February 1945 before the world was decolonised. Now that nuclear weapons have come to symbolise the hierarchical status in the international power system, the real purpose of the N.P.T. is to freeze the *status quo* and perpetuate the international power system as it existed at the end of World War II. The nuclear weapon has thus become the symbol of great power status. Consequently, it is considered necessary to deny this status to other nations.

China is a case in point. China itself perceived nuclear weapons as constituting the international power symbol. Having been given big power status at Yalta, China found it necessary to acquire nuclear capability to assert its role fully in the international politics. How the West viewed Chinese nuclear power is also an interesting phenomenon. The Western powers attach great prestige to nuclear weapons and their perception of other nations is conditioned to a great extent by this factor. This was quite evident when President Nixon initiated a rapprochement policy with China and visited that country in 1972. This change in U.S. policy towards China was justified by the Presidential aide, Herbert Klein, who said that "a nation of 800 million people armed with nuclear weapons could not be ignored." For 22 long years China with its 800 million people *could* be ignored by the United States and its camp followers in the United Nations who voted against the admission of the People's Republic of China into the United

Nations. But it was only after a dozen nuclear explosions at Lop Nor, that it became difficult to ignore China.

The second objective of the N.P.T. was to ensure that the world remained, by and large, bi-polar; and that no independent centres of power or decision-making emerged in the international system. This is the secret underlying vertical proliferation of the super-powers in a desire to outdistance all others. A third objective was to keep a tight control over the new technology so that the industrialised world of North America and Europe would continue its dominance over the rest of the world. Fourthly, the N.P.T. enabled the super powers to use their nuclear power image and the security umbrella for political and economic leverage over their own industrialised allies. Lastly, the Soviet Union had a particular objective to ensure that West Germany and Japan did not have direct access to nuclear weapons. In fact, the N.P.T., in the words of the late V.C. Trivedi, was an exercise in "disarming the unarmed." It was never intended to halt the proliferation of nuclear weapons or nuclear arms race; it was calculated to prevent decentralisation of international power.

It was at the time when the N.P.T. was being recommended with great fanfare to the world that the President of the United States was forbidding his Intelligence chief, who reported to him about diversion of fissible material to Israel, not to disclose the fact even to his Secretary of State and the Secretary of Defence. The N.P.T. was, thus, born in deception. The deception was practised not by President Lyndon Johnson alone. Even today in the Carter Administration the report of the General Accounting Office (G.A.O.), the financial watchdog of the Congress, which has investigated the diversion of fissile material from NUMEC plant at Apollo, Pennsylvania, to Israel, has been suppressed. This could not have happened without the approval of the present President. Other strong advocates of non-proliferation such as the former West German Chancellor Willy Brandt and the present Chancellor Helmut Schmidt have also been parties to secret transfer of nuclear technology to South Africa which could give South Africa nuclear weapon capability.

The conclusion is inescapable that countries like the United

States, West Germany, France, Britain, Holland and Belgium —and now even Switzerland—have in various ways contributed to the proliferation of nuclear technology to countries like Israel, South Africa and now Pakistan.

If the sponsors of the N.P.T. were sincere about ensuring that no clandestine diversion of materials and components took place, then the first step they should have taken was to impose strict safeguards on their own fissile material-producing facilities. After all, these countries have more reactors, more fissile material in production and in transit and have greater numbers of people who know how to handle fissile materials. Therefore, the need for safeguards should have been felt even more in their cases than in developing countries who do not have massive nuclear power programme.

However, as pointed out earlier, the nuclear weapon powers decided to make the application of safeguards a matter of prestige and an instrument of hegemony and not an instrument to halt proliferation: and so they exempted themselves from all safeguards. The consequence of this is that a total of 4,450 kg of weapon-grade uranium and plutonium have been found missing from 25 facilities in the United States. This cannot be said to be a statistical loss because 90 per cent of the missing plutonium is from the Richland (Washington) plant and the Aiken (South California) which are under the Energy Research and Development Administration (E.R.D.A.). The Loss Alamo laboratory alone is reported to have lost 105 kg of weapon-grade uranium. Similarly, 440 lbs of plutonium and uranium are unaccounted for in British nuclear facilities. Many people in the United States, including the eminent former weapon designer Theodore Taylor, have been warning the United States Government of the possibility of diversion.

Not insuring against the risks arising out of inadequate safeguards in their fissile material facilities is only one aspect of the callous attitude of nuclear weapon powers. Such an attitude arises out of America's misplaced faith in its so-called fool-proof technical systems and in its self-righteousness. Even after revelations by top American executives and scientists about the inadequacy of safeguards in the United States facilities, the American administration has refused even to

consider this as a major issue in its nuclear policy. For instance, the number three man in the United States Atomic Energy Commission, Howard C. Brown, had in a briefing on the NUMEC incident recorded the status of the safeguard system. He said that the A.E.C.'s system for protecting uranium was based on an "assumption of honesty." If this assumption were removed, Brown said, "the system did not present itself in a credible light." He continued:

> If collusion between a shipper and a foreign government was assumed, it would be theoretically possible to ship material in excess of the amounts indicated in the company records. Because it was based on an assumption of honesty and financial responsibility, the A.E.C. material accountability system might not reveal a deliberate and systematic attempt to divert material in this manner.*

In fact the entire attitude of the United States administration towards nuclear weapons is marked by the same casualness. The Military Construction Subcommittee of the House Appropriation Committee filed a written warning in 1974 that American nuclear weapons kept abroad were highly vulnerable to terrorists. Among the findings of the Committee were:

> (*i*) Facilities to protect nuclear weapons against raids by terrorists or subversive elements were mostly 15 to 20 years old;
>
> (*ii*) ill-protected weapons were exposed to the grave danger of destruction or seizure in case of an attack by a group of subversive elements with sufficient firepower;
>
> (*iii*) a well-financed terrorist group could carry out such a raid anywhere in the world;
>
> (*iv*) an abnormally large number of United States nuclear weapons are widely scattered in various countries and thereby pose a grave problem of control (in one foreign country 700 warheads are deployed with 82 warheads in one airforce base alone); and
>
> (*v*) in a country where more than 200 nuclear weapons

*David Burnham, "The Case of the Missing Uranium," *Atlantic*, April 1979.

were stockpiled, there were slums where anti-governmental elements were known to have been hiding for years within a distance of just 80 metres from such weapons.

Another special report of the U.S. Senate Foreign Relations Committee revealed that 7,000 nuclear warheads in Europe were stored at over 100 sites and that two-thirds of these sites contained weapons to be used by the European forces. Though the weapons are technically under American control, they have been assigned to allied forces for use in the event of war. This procedure and the availability of weapons to allied forces could give rise to concern about their safety at a time of tension and crisis, as in the case of the Turkish-Greek conflict.

Another Congressional document in 1974 showed that a total of 3,647 persons who had access to nuclear weapons were removed from their jobs within a single year because of drug abuse, mental illness, alcoholism or discipline problems. Another study found that 8 per cent of the American armymen surveyed in West Germany used hashish daily and 53 per cent said they had tried it at least once. Given these facts, it should not be surprising if Colonel Gaddafi tried to obtain a few ready-made nuclear weapons from the United States nuclear stockpiles in Europe.

In the United States, the nuclear power industry is in private sector. Many operations in regard to fissile material are also handled by private firms. In the late sixties and early seventies, there was a great deal of euphoria about nuclear power and with that developed high expectations of a large number of orders for power reactors from all over the world. However, of late, in the United States as well as in some of the European countries, a strong lobby of environmentalists has emerged who oppose nuclear power. Further, due to action taken by the London Group and the reluctance of the nuclear weapon powers to transfer technology even for peaceful purposes, there has been a cut-back in the demand for reactors. This appears to have led to the emergence of a black and grey market of nuclear equipment and fissile material fed by the nuclear firms of the United States and Western Europe with excess unutilized capacities. It is this phenomenon which

appears to have assisted Pakistan in its attempts to put together a centrifuge plant for enriching uranium.

If the United States Congress and Administration had been realistic about their aim to achieve non-proliferation, the United States Non-proliferation Act of 1978 would have been drafted differently. It would have applied effective safeguards on American facilities against these risks. The American Non-proliferation Act of 1978 is unlikely to go down in history as a proof of either President Carter's sincerity or his understanding of the facts of nuclear life.

In 1974 Mason Willrich and Theodore Taylor brought out a study entitled *Nuclear Thefts: Risks and Safeguards* in which they highlighted the casualness with which the fissile material was being handled in America. The United States has the highest number of skilled and knowledgeable personnel who have the know-how to assemble weapons and who had at one time worked in the government and are now out of it. It also has the best organised criminal gangs in the world with vast financial resources. The law of probability would indicate that the risks of weapons being stolen or parts being pilfered and assembled into a weapon or fissile materials being diverted are the highest in the United States. In 1974 the C.I.A. in a special National Intelligence Estimate warned that Israel had become a nuclear weapon power through clandestine diversion of fissile materials and countries like South Africa, Pakistan, South Korea and Taiwan could also go nuclear. (The C.I.A. report is appended at the end of this chapter.) Yet, the United States Non-proliferation Act does not address itself to these crucial issues. Instead, some of the "best and the brightest" (the kind of people who landed the Americans with the Vietnam war and who tried to erect electronic fences to stop Vietnam's unification) have been advocating technological fixes to stop nuclear proliferation. This would indicate an attitude of naivete, in respect of both political and technological aspects of nuclear issue beyond all belief, to which the Israel proliferation, the suspected proliferation to South Africa, and now the contrived proliferation to Pakistan bear ample testimony.

The non-viability of the N.P.T. seems to have been implicitly

recognised even by the sponsors of the Treaty, though they cannot afford to say this openly. But the fact that they have resorted to extra-N.P.T. measures shows their own lack of faith in the N.P.T. These measures were designed to restrict severely the transfer of nuclear material and know-how to non-nuclear and near-nuclear countries. What is more, these severe conditions for safeguards and inspection were imposed on those countries who openly sought nuclear co-operation with the nuclear "haves." These steps are in total violation of Article IV, Clause 2 of the N.P.T.

The new strategy of the N.P.T. lobby, as evolved after 1974, was to impose the Treaty's provisions by disguising them under other labels such as "full-scope safeguards," the "principle of pursuit," the London Group guidelines and the U.S. Nonproliferation Act. All these assume that proliferation of weapons could be halted by preventing the spread of technology and nuclear material and that this could be achieved by agreements among themselves to adhere to certain norms in regard to nuclear supplies. This was the rationale which gave birth to the nuclear cartel called the London Group. However, the world did not have to wait too long to realise that this second phase of the non-proliferation strategy is equally shortsighted and as ineffective as the first phase symbolised by the N.P.T. as Israel and perhaps South Africa, and now Pakistan, have proved.

We do not know for certain when the Islamic bomb will be born. What we do know is that Pakistan and some other countries have been able to procure nuclear components for the purpose of developing nuclear bombs. The countries who have knowingly or unknowingly helped it are the United States, Britain, France, West Germany, Belgium, Holland and Switzerland—all of whom are members of the London Group. It has already been revealed that in the case of at least two countries—Britain and Switzerland—the consignments concerned were cleared by the respective governments because, it is said, they did not violate the existing export control regulations of those countries.

This can happen only under the following circumstances: either the London Group governments have not been follow-

ing their own guidelines in regard to the deals in which they have enormous commercial stakes (which indicates the intense competition among them as also their reluctance to impose severe restrictions on exports as required by the "guidelines"); or, is it possible that the components bought by Pakistan were all multipurpose and the supplier governments did not know that they could be put to nuclear uses? If that be the case then it is clear that nuclear technology has really become so commonplace that in spite of all the sanctions sought to be placed on its spreading, it is difficult to contain proliferation of nuclear technology by means of "technological fixes."

It is possible to argue that these technological fixes may prove to be counter-productive. It may lead to the assembly of crude facilities with primitive equipment and through unconventional methods of operation, a boon for all those who have nuclear ambitions. The momentum of technology is something which even its monopolists cannot stop. If it is stopped it might take different directions which might prove even more disastrous.

APPENDIX*

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON D.C. 20343
OCT. 2 1974

Chairman Ray
Commissioner Kriegsman
Commissioner Anders
Thru: General Manager

PROSPECTS FOR FURTHER PROLIFERATION
OF NUCLEAR WEAPONS

Enclosed for your information are the main conclusions reached in the final version of the Special National Intelligence Estimate (SNIE). The full text of the SNIE, carrying higher classifications and controls, is available in ISA.

Sd -
James G. Poor, Director
Division of International
Security Affairs

*National Security Information*

*Obtained under the Freedom of Information Act of the U.S.A.

(1) In the 1980s, the production of nuclear weapons will be within the technological and economic capabilities of many countries. The once formidable barriers to development of nuclear weapons by nations of middling size and resources have steadily diminished over time. They will continue to shrink in the years ahead as plutonium, enriched uranium, and technology become more widely spread. Some countries will consider nuclear weapons largely in terms of military utility. The principal determinant of the extent of nuclear weapons proliferation in coming years will, however, be political considerations including the policies of the superpowers with regard to proliferation, the policies of suppliers of nuclear materials and technology, and regional ambitions and tensions.

(2) *(Para blanked out here)*

(3) We believe that Israel already has produced nuclear weapons. Our judgement is based on Israeli acquisition of large quantities of uranium, partly by clandestine means; the ambiguous nature of Israeli efforts in the field of uranium enrichment, and Israel's large investment in a missile system designed to accommodate nuclear warheads. We do not expect the Israelis to provide confirmation of widespread suspicions of their capability, either by nuclear testing or by threats of use, short of a grave threat to the nation's existence. Future emphasis is likely to be on improving weapon designs, manufacturing missiles more capable in terms of distance and accuracy than the existing 200-mile Jericho, and acquiring or perfecting weapons for aircraft delivery.

(4) Several other countries—including West Germany, Sweden, Canada and Italy—could have fabricated nuclear devices more easily, from technological and financial point of view, than India and Israel. They have refrained and they are unlikely to be much influenced by weapons acquisition in countries like India. The inhibitions facing each of them are strong. In all, popular opinion is strongly opposed to the acquisition of nuclear weapons, both on emotional grounds and because such weapons could entail substantial risks—of provoking attack, of offending vital allies and of destroying existing mutual security arrangements. It would require very

fundamental changes, such as the breakup of major defence alliances accompanied by a substantial increase in strife and tension throughout the world, to induce countries like West Germany, Sweden, Canada and Italy to exercise their near term capability.

(5) The Director of Central Intelligence, the Deputy Director of General Intelligence representing the Central Intelligence Agency, the Director of Intelligence and Research representing the Department of State, the Director Defence Intelligence Agency, and the Assistant Chief of Staff for Intelligence, Department of the Army believe that Japan's situation is very similar to that of the other advanced Western nations just mentioned. They believe Japan would not embark on a program of nuclear weapons development in the absence of a major adverse shift in great power relationships which presented Japan with a clearcut threat to its security. The Assistant Chief of Staff, Intelligence Department of the Air Force and the Director of Naval Intelligence, Department of the Navy, however see a strong change that Japan's leaders will conclude that they must have nuclear weapons if they are to achieve their national objectives in the developing Asian power balance. Such a decision could come in the early 1980s. It would likely be made even sooner if there is any further proliferation of nuclear weapons, or global permissiveness regarding such activity. These developments would hasten erosion of traditional Japanese opposition to a nuclear weapons course and permit Tokyo to cross that threshold earlier in the interests of national security. Any concurrent deterioration of Japanese relations with the Communist powers or a further decline in the credibility of US defence guarantees would, in their view, further accelerate the pace of nuclear weapons development by Japan.

(6) Less sweeping changes could induce one or another of the less advanced nations to mount the sort of nuclear effort India and Israel have made. Some States, such as the Republic of China, Argentina and South Africa, will be much influenced in their decisions not only by the general course of proliferation but by such factors as growing feelings of isolation and helplessness, perceptions of major military threat and desires

for regional prestige. In each of these cases, any weapons capability would probably be small and delivery probably would depend on aircraft, though there is some possibility that one or another might be able to purchase a nuclear-capable missile system from a foreign supplier.

(7) Taipei conducts its small nuclear program with a weapon option clearly in mind, and it will be in a position to fabricate a nuclear device after five years or so. Taipei's role in the world is changing radically, and concern over the possibility of complete isolation is mounting. Its decisions will be much influenced by US policies in two key areas—support for the Island's security and attitudes about the possibility of a nuclear armed Taiwan. Taipei's present course probably is leading it toward development of nuclear weapons.

(8) Argentina's small nuclear program is being pursued vigorously with an eye toward independence of foreign suppliers. It probably will provide the basis for a nuclear weapons capability in the early 1980s. Argentina has no apparent military need for nuclear weapons, but there is strong desire for them in some quarters as a way to augment Argentina's power vis-a-vis Brazil. Over time, in the absence of strong international pressures that stop nuclear weapons acquisition elsewhere, there is an even chance that Argentina will choose to join the nuclear club in a small way.

(9) *(Para blanked out here)*

South Africa probably would go forward with a nuclear weapons program if it saw a serious threat from African neighbours beginning to emerge. So serious a threat is highly unlikely in the 1970s.

(10) Other candidates—Spain, Iran, Egypt, Pakistan, Brazil and South Korea—would need at least a decade to carry out a nuclear weapons development program. One or another might detonate a demonstrative device earlier—perhaps considerably earlier by using purchased materials or by obtaining extensive foreign assistance. Each of these countries is subject to a different set of motivations and pressures. Some have enemies already making efforts in the nuclear weapons field; all will be concerned with such efforts on the part of neighbours or potential antagonists. Some will be interested in

nuclear weapons for their presumed prestige. Unless countries opposed to proliferation—particularly the US and the USSR—find ways to stop the spread of nuclear weapons program before these candidate countries are in a position to go forward, at least some of them will be motivated to join the nuclear race. The strongest impulses will probably be felt by Pakistan and Iran; Egypt and Brazil now appear to fall into a second category of likelihood.

(11) France, India and Israel, while unlikely to foster proliferation as a matter of national policy, probably will prove susceptible to the lure of the economic and political advantages to be gained from exporting materials, technology and equipment relevent to nuclear weapons programs. And most potential proliferators are on good terms with one or all of them.

(12) It is theoretically possible for a country capable of developing a nuclear weapon to do so covertly, up to the test of a first device. *And a test is not absolutely necessary.* In practice, indications of such a program are virtually certain to reach the outside world. But most countries will seek to maintain the tightest possible security with regard to any military nuclear activities, and information is likely to be intermittent and inconclusive. Indigenous ballistic missile delivery systems, on the other hand, could be readily identifiable early in the development cycle, and missile systems obtained abroad would not remain undetected for any significant period.

(13) Governments backward in the nuclear field and anxious to acquire token capability quickly are more likely to try to steal weapons and fissionable materials, despite the fact that the latter are less well detected. A country capable of developing and producing its own nuclear device is highly unlikely to try to steal weapons, but one might seek fissionable materials by theft or diversion. Competently done, diversion might go undetected.

(14) Terrorists might attempt theft of either weapons or fissionable materials. They could see the latter as useful for terror or blackmail purposes even if they had no intention of going on to fabricate weapons.

## PART TWO

# THE STRATEGIC CONSEQUENCES

# 5

# EVOLUTION OF NUCLEAR DOCTRINES

NUCLEAR PROBLEMS have been debated in India for a number of years now, going back even to the period before the Pokharan explosion. Quite apart from official deliberations on the subject which, it is presumed, must have been held at the highest levels of government, the press and other media have succeeded in generating widespread public interest and debate, though not always on an informed or enlightened plane. Many arguments for and against India's developing a bomb have been put forward and have aroused controversy. It would be interesting to analyse the rationale behind the contending lobbies.

Perhaps the strongest among the groups of lobbyists is the Western sponsored and oriented group which used to peddle a blatant economic presumption served up as an argument: that a poor country like India could not afford a nuclear programme. At Pokharan, however, our scientists discredited that line of propaganda by proving that we could at least afford an explosion—the main step in a nuclear programme.

Then there were the "doves" of this country, a mix of intellectuals, businessmen and a number of faceless people in the government. Their line was to hide behind *ad hoc* moral-legal values that seldom bore relevance to the points at

issue but seemed to gain support from various ill-informed sources for their anti-bomb stand. Lastly, only a small coterie of analysts, whose recommendation was based on a study of the esoteric dialectics of nuclear doctrine as evolved in the East-West context, voiced support for the acquisition of an Indian military nuclear capability. Curiously, even after the announcement of the start of a Chinese nuclear programme in 1959, there was no armed forces lobby for such a programme in this country. With very few exceptions, there appeared to be little awareness in the armed forces of the strategic and other nuances of a nuclear scenario.

After the Pokharan explosion of 1974, most people in this country shared in the prestige fall-out of "nuclear club" membership but the general approach to a nuclear debate, even in informed circles, continued to be guided by moral and emotional values, or economic presumptions, rather than through a study of strategic implications. As for the government's decision of acquire the odd-man-out "nuclear-peaceful" status, and its validity to a national aspiration to promote general nuclear disarmament, this held an appeal only for a small circle of policy-makers in government or experts on its fringes. The majority of those who concerned themselves with this debate took shelter behind cliches thrown out by the on-going nuclear dialectics in the West: the so-called "nuclear umbrella" offered by Great Britain, the United States or whoever; the catch phrase that nuclear-bombs-were-not-made-to-be-used-but-meant-only-to-deter; the creation of "nuclear-free" zones; all of which seemed to offer facile notions of security.

In these circumstances it is necessary, now that we are approaching an era of nuclear shadows over the subcontinent, to make a survey of the nuclear debate as it has developed in other milieus and to derive strategic and political indicators for guidance in our own future policy-making.

Following the atomic bombardment of two Japanese cities, which the Americans claimed was carried out to end Japanese resistance at the tail end of World War II, there was a strong move to internationalise control of this new technology that possessed such tremendous potential—in particular the Ba-

ruch Plan put forward by Bernard Baruch, who had for many years been an active adviser to successive American Presidents. While the plan envisaged internationalisation of atomic energy research establishments, to be followed by abandonment of existing warheads by America, the Soviets insisted on the reverse order—the destruction of American stockpiles of weapons, followed by internationalisation. Faced with a growing post-war confrontation with the Soviet Union and the communist bloc, America (the only power which then possessed the technology) eventually decided to exploit its nuclear weapon potential to establish supremacy in international relations.

Using the argument that the headlong rush to post-war demobilisation by the armed forces of the Western powers had resulted in the Soviet bloc acquiring overwhelming conventional superiority (which was more a popular American perception than reality) thus creating a conceptual threat of a Russian offensive against Western Europe, America advanced the "deterrent" theory to justify the retention of nuclear weapons monopoly in its own hands. The argument was that in the event of an attack by superior Russian forces the Americans would retaliate by an atomic bombardment. Since the effects of such bombardment had already been demonstrated in Japan, it was felt that a counter-threat of this nature would *deter* the Russians from launching a conventional initiative. Starting with this strategic premise a whole body of esoteric nuclear dialectics has been built up over the years to justify, at first, the monopoly argument and, subsequently, the so-called "non-proliferation" crusade.

It will be seen that the earlier "deterrence" strategy of the Western bloc was in reality an extension of an operational defensive posture: that is to say, in the event that deterrence did not work and the conceptual attack from the communist bloc did materialise, the Americans would actually *use* the few atomic bombs it possessed. When the North Atlantic Treaty Organisation (N.A.T.O.) was formed its force levels and tactical doctrines actually took this concept into account.

It will be seen that during this phase of nuclear strategy, N.A.T.O. subscribed to what it perceived as a credible and

viable defensive strategy, based on the fact that it possessed a deliverable bomb and the Russians did not, combined with the threat that it would actually be used *in extremis*. Even when, towards the end of the first phase, it was discovered that the Russians had also acquired an atom bomb, America continued to rely on the same strategy not only because America still possessed numerical superiority in numbers of atom bombs but also because the United States heartland was out of range of Russian bombers. America was therefore quite prepared to accept the risk of bilateral nuclear war. Meanwhile, N.A.T.O. made certain adjustments in tactical doctrine, such as changes in dispersal limits and targeting procedures; but its plans remained based on the actual use of the bomb.

Then came the second phase, when the whole picture changed because of the appearance of the thermonuclear (hydrogen) bomb—first in America, followed shortly by a similar Russian capability. The destructive power of the hydrogen bomb was so much greater than that of the atomic bomb that it was no longer possible to envisage its being used in a bilateral nuclear war in Europe without inflicting damage unknown in history. At the same time, Russia's superiority in conventional forces as perceived and propagated by the Western powers made their own conventional defensive posture less and less credible. It was at this stage that the thesis of first use of tactical nuclear weapons to counter the alleged Soviet superiority in land forces was propounded.

Although this new situation introduced a conventional-nuclear balance between European N.A.T.O. and the Soviet bloc, in a purely nuclear United States/Soviet confrontation there was as yet no balance—because the Americans still held strategic targeting advantage. Russian nuclear bombers could reach targets in Europe only; they still did not possess the requisite range to threaten the United States mainland; whereas American bombers based in Europe (and in a gradually expanding ring of bases constructed in Morocco, Turkey and, later, in Spain) could threaten the Russian homeland.

Taking advantage of this geographical factor the Americans transferred a part of their nuclear bomber force to

the United States mainland (to prevent them from being wiped out by a sudden first strike by the Russians) and Dulles announced his "massive retaliation" strategy as the basis of N.A.T.O.'s defensive posture. The strategy asserted that *any* attack by the Russians against N.A.T.O. ground forces would *automatically* be met with an immediate and *full* nuclear response. Thus, the role of N.A.T.O. ground forces was downgraded even further—to act merely as a "trip wire" to set off a nuclear response.

It will be seen that the second phase of the middle nineteen-fifties was still a period when the actual *use* of the nuclear bomb was envisaged. It was hoped that the "massive retaliation" threat would deter war, but if it did not the response would be the actual *use* of nuclear bombs The production of tactical nuclear bombs made this threat more credible. It was feared that because the hydrogen bombs would threaten the destruction of much of European civilisation both sides might be induced to impose a self-restraint on resorting to nuclear war; whereas a smaller bomb, which could be aimed specifically and accurately at military and military-related targets and thus spare major urban centres, would not necessarily impose any such inhibition. This was a period before the concept of escalation came to be fully understood.

Meanwhile, in America certain strategic decisions taken by the Eisenhower administration eventually caused a marked set-back to United States' weapon superiority. A debate had been raging in the mid-fifties whether the United States' future nuclear programme should aim to create an air defence capacity to counter the long-range trans-Atlantic bombers that the Russians were developing, or to go ahead with mainly an offensive programme of building more and more nuclear bombs and developing intercontinental missiles. The enormous expenditures involved precluded both being undertaken at the same time. The Pentagon, as can be expected, advocated the offensive programme; but the proponents of the defensive programme in Congress won out—and America started on an elaborate air defence network (surveillance, "air alert" missions and other measures). The United States was, presumably, influenced by its ring of bases around Russia and its long

range bomber delivery systems.

The Russians, on the other hand, had to aim at a delivery system which would reach the American heartland in order to effectively deter the United States and they concentrated on the field of rocketry. Their achievements in this field was spectacularly heralded in October 1957 by the orbiting of the first *Sputnik,* which was at first mistakenly taken to be synonymous with missile capability. Anyway, at the time this caused great consternation in America because the whole air defence programme they had taken up—which was aimed against Russian bombers—suddenly became obsolete. The fearful prospect opened up that once the Russians converted their *Sputnik* technology to a military programme, the Strategic Air Command's bases in the United States would have only 20-30 minutes warning period before being hit, with no anti-missile defences to counter the new threat. Thus, for the first time, the Russians were perceived as possibly acquiring first-strike capability which was till then a United States monopoly.

It was at this stage that Kennedy was elected President, and with him started the next phase in American nuclear strategy. When Kennedy came to the White House, he brought with him a whole team of intellectuals including General Maxwell Taylor, who was brought back from retirement. This team set about tackling the nuclear dilemma that faced the United States in the early sixties—the so-called "missile gap." As it turned out, there never was a "missile gap" or a "deterrence gap." Nevertheless, it was decided to switch from "massive retaliation" to a strategy of gradual deterrence to ensure that a nuclear exchange did not automatically escalate into a spasmic total nuclear annihilation.

"Massive retaliation" being no longer either valid or credible, it was scrapped and replaced by General Maxwell Taylor's "flexible response" strategy, which implied a regulated response to a Russian attack by "whatever means it deems necessary." In other words, in the event of a Russian attack, the United States would not resort automatically to nuclear reprisal against Soviet cities but might respond at a lower level—that is, conventional or tactical nuclear or "counter-

force" level—thus inviting Russia to adopt a like posture. This, it was felt, would enable the two adversaries to establish communication and prevent further escalation in nuclear exchange, and possibly to establish a pause for negotiations.

At the same time President Kennedy scrapped some of the weapons programmes considered not quite cost effective, reversed the priorities and launched the nation into a new and massive offensive weapons programme. There already existed at that time prototypes of new and highly efficient weapons—the nuclear submarine, which could stay and move submerged, and therefore undetected, for considerable periods; the Polaris missile; and the inter-continental missile, the Minuteman, which used a solid propellant and therefore could be launched rapidly, Kennedy instituted a gigantic programme of building nuclear Polaris-armed submarines and Minuteman missiles in concrete silos in such vast numbers that it established a first strike capability for the United States over the Soviets for well over a decade.

The main force of the Kennedy reforms, however, lay in the introduction of a new, sophisticated strategic concept—the second-strike capability. The intellectual basis for this new concept was from the RAND Corporation, which had argued that a surprise first-strike by either side could, in view of the destructive capability of hydrogen bombs, disarm the opponent's strategic forces—and thus neutralise its deterrent power. This possibility naturally placed greater stress on the importance of second-strike forces, that is, dispersed, hidden and especially protected missiles which could survive and retaliate even after absorbing an all-out nuclear attack. The Americans therefore set about building a second-strike capability with 1,000 Minuteman missiles in hardened silos and 656 submarine borne missiles on board 41 nuclear submarines. This was President Kennedy's main contribution to the nuclear programme—to convert mere superiority of first-strike capability to a second-strike capability. Such was the American superiority in nuclear missiles that by the autumn of 1962 he was able to stand up to the Russian nuclear threat during the Cuban crisis.

This way, a new concept was introduced into the continuing

United States-Soviet Union nuclear dialogue—that of "absolute deterrence," based on an *assured second-strike reprisal* to a first-strike initiative. It was not long before the American concept and achievement led the Russians to adopt a similar programme: and when that was completed, and both sides had acquired invulnerable retaliatory second-strike forces, the era of "nuclear stability" had arrived. Thereafter, both sides were deemed to be "absolutely deterred" from launching a first-strike offensive by the credible threat of retaliatory annihilation. This is the "balance" that was called the MAD doctrine (Mutual Assured Destruction). Only an unforeseen technological breakthrough, it was felt, could upset this stability. Increased accuracy of missiles which could destroy a hardened silo, multiple independent re-entry vehicles, the MIRV (multiple warheads in a large rocket which are individually and accurately aimed at different targets), the manoeuvrable re-entry vehicles, the MARV (multiple warheads in a large rocket which can independently be guided and targeted) and submarine detection systems were some of the possibilities which could upset the balance. But so long as the second-strike deterrent is invulnerable, the basic stability of mutual deterrence will be sustained.

It will be seen that much of the validity of these nuclear dialectics depends on the *perception* of deterrence, both by the deterrer and the deterred. Deterrence as a notion is not anything new. Much of strategic effort throughout human history has revolved around the effort to prevent a would-be aggressor from launching an offensive by taking certain measures (such as building up strong armed forces) that would convince the enemy that his aggression would be too costly and perhaps end in defeat. The difference between deterrence in the conventional sense and deterrence in the nuclear context lies in the degree of effectiveness. In the past the threat of armed retaliation was never so great as to threaten the very survival of the aggressor nation. His aggression might end in defeat, but there was always a chance that it would succeed; and even if it did not, there might still be a chance of resiling from the defeat and, at a later date, of trying again.

Deterrence in nuclear strategy (using thermonuclear war-

heads) purports to threaten the very survival of the aggressor nation and therefore, it is argued, it is absolute; and, under the MAD doctrine both sides become absolutely deterred from launching a nuclear initiative. Yet, on analysing the course of the United States/Soviet Union nuclear confrontation, even under the MAD stability, it will be seen that both sides constantly envisage a nuclear war as actually taking place. More than that, there is a constant endeavour to upset the nuclear balance in a way that a first-strike option would become feasible. The result is that attention is focused on the size of the nuclear first-strike forces and the extent of "overkill" capability (whereas under the MAD doctrine once a second-strike force has acquired the power to destroy the enemy's homeland, any addition to that force becomes, in theory, irrelevant). In other words, though so much is made of "deterrence" in nuclear dialectics, in fact much of the fear of nuclear powers is concerned with the probability of its not working.

For example, the whole argument regarding the use of tactical nuclear weapons stems from the desire to establish credibility of first use of nuclear weapons, but at a sufficiently low and controlled level of destruction for (hopefully) the other side not to escalate automatically and too rapidly. The necessity to develop this formulation arose from the fact that absolute deterrence under the MAD doctrine deterred nuclear war only; it did not deter conventional war. Hence, as America and Russia approached the "mutual assured destruction" barrier, it became more and more difficult for European N.A.T.O. powers to believe that in the event of a Russian conventional attack leading towards certain N.A.T.O. defeat, the American President would retaliate on a nuclear level and thus invite Russian nuclear response against the American homeland. Western European powers argued that for the nuclear reprisal to be credible to the Russians, the power to use the bomb should be delegated to N.A.T.O. command—not because N.A.T.O. necessarily wanted to *use* it, but because the Russians would then be less sure that they would *not* use it. The Americans, of course, refused; but one of the methods by which they tried to restore the confidence of their European

allies was by asserting that the "flexible response" strategy envisaged the *use* of tactical nuclear weapons (that is, low-yield nuclear weapons meant for support of conventional forces) in case the West's conventional defence could not hold a Russian conventional attack. Thus, in 1967 the official doctrine issued to N.A.T.O. commanders (who, incidentally, have never had a hand in arriving at any of these nuclear decisions) directed the Supreme Commander to meet a Russian conventional attack, firstly, on its own level; but if that failed, to conduct a deliberate nuclear escalation if aggression could not be contained or the situation restored by direct defence.

This directive was supported by its own set of dialectics (using such jargon as the "fire-break" theory, "nuclear threshold," "collateral damage limitation" and other phrases) to lend validity to the flexible response strategy. However, the mechanics of how, when or by whom the authority to use the tactical bomb would be given, or the steps to be taken to prevent rapid escalation to all-out nuclear war, have never been revealed or even formally discussed. (In fact, no part of American nuclear plans can, under the McMahon Act, be revealed to N.A.T.O. partners.)

This attempt to reassure N.A.T.O. partners eventually back-fired. The United States, in order to convince Western Europe about the validity of flexible response, had to push the theory that nuclear war at a *very* low level *could* be contained at its own level and therefore the American President would in fact give permission for it to be used in case of imminent conventional defeat. This theory back-fired because the possibility of a war actually being fought at tactical nuclear level is just what European N.A.T.O. did *not* want because they realised that in case a tactical nuclear war was fought over Europe their civilisation would come to an end, no matter *who* won the war. What they wanted was *deterrence* and not defence.

It was McNamara who, as Kennedy's Secretary of Defence, thought of another approach—to raise the level of the flexible nuclear response sufficiently high to prevent it being resorted to, and yet to remain below the all-out MAD

level. He issued a statement to the effect that the Americans possessed what he termed a "counter-force" capacity, that is to say, the capacity to target limited yield American missiles accurately on to Soviet missile sites and destroy them in a first-strike without inflicting great collateral damage on Russian cities. The purpose of this statement was to introduce into the concept of absolute nuclear stability a notion of a credible first-strike option based on the "damage limitation" strategy of launching a strategic (as distinct from tactical) missile aimed at Russian homeland military targets. This threat, it was argued, would shake the stability sufficiently to preclude a major conventional initiative by the Russians.

This was the period during which a whole new set of dialectics sprang up to determine the various steps in escalation—tactical nuclear strikes, "counter-force" strikes, "counter-city" (all-out) strikes—all attempted to be orchestrated in some form of bizarre "escalation" mechanics which nobody seemed to be able to clearly enunciate but which nevertheless greatly exercised the whizz-kids and think-tank specialists on both sides of the Atlantic.

Finally, it was another Defence Secretary, Schlesinger, who tried to reiterate the *counter-force* concept, but with added force. By the time he came to the Pentagon, Kissinger's star had been on the ascendant. Unlike Schlesinger, Kissinger harboured strong doubts about the viability of a controlled "tactical nuclear war" which, he felt, would automatically escalate to an all-out war. (It was Kissinger who in the early fifties originally advocated use of tactical nuclear weapons against superior Soviet conventional forces. His thesis came out in a book entitled *Nuclear Weapons and Foreign Policy*). He was convinced that the mutual United States-Soviet Union balance of terror stability must aim to inhibit *all* forms of nuclear war—tactical, counter-force and counter-city.

Schlesinger's policy, on the other hand, reflected the Pentagon line—that American nuclear policy must establish credibility for fighting a limited nuclear war (as a deterrent to a conventional war) if only to reassure the West Europeans. In his first budget announcement, he made it clear that his weapons development programme—cruise missiles of high

accuracy, reinforcement of the Trident submarine missile programme, more accurate second generation MIRVs and MARVs—was aimed at achieving just that purpose. The development of high-accuracy missiles with controlled fall-out warheads would bring "counter-force" and tactical nuclear war within the realms of tolerable conflict.

Schlesinger's policy restated what McNamara had once tried to enforce, that the American posture should switch from a defensive (second-strike) threat to an offensive (first-strike) policy, albeit limited to counter-force targets. However, before Schlesinger's strategic argument could affect the nuclear-stability situation he was dismissed from his post by the new President, Ford; nor was his "counter-force" argument ever revived by the Carter administration. Since the Americans implicitly have always been trying to sustain a first-strike option, they are also afraid of losing that first-strike option to the Soviets. Hence there are frequent references in the American strategic community of the Soviets attempting to reach first-strike capability.

What becomes clear is that there is no valid basis for the argument that the "no-survival" fear gives deterrence a permanent character. As we have seen, even though there is a fundamental contradiction between the quest for deterrence and the quest for a first-strike capability, there is a continuous effort to establish the credibility of a first-strike, whether at "limited" nuclear level or at the top. This is because however great might be the desire for nuclear stability, a deliberate strike might have to be ordered if the leadership in a country perceives that the consequences of not starting a nuclear war were even more unacceptable than the outcome of a nuclear war. For example, the United States declared that it was prepared to launch an all-out nuclear first-strike in 1962 when it seemed that the Russians were about to establish nuclear missile bases in Cuba.

It becomes a question of the "stake" versus the "risk." A first-strike risks nuclear reprisal, and hence may be deemed as self-deterred. But when the stake is perceived as being greater than the risk,a first-strike becomes a valid alternative; and this

is the reason for the cynical truism that "deterrence is effective only until it fails."

It must be borne in mind that the processes of evaluating the "stake" and the "risk" are highly complicated and encompassed by a number of subjective perceptions and values. Nuclear dialectics is a delicate process in which uncertainty plays a large part. For example, the present second-strike potential of the United States is based on the triad of dispersed submarine-launched missiles, land-based missiles in hardened silos and bomber-based missiles. Let us suppose that at some future date the credibility of the bomber-based missiles falls to zero. At the same time, it might be revealed that the deep underground hardened-silo Minuteman missiles (which have never been testfired from such silos) have suddenly developed problems regarding targeting and quick-firing procedures. If these defects are known to exist during, say, a period of acute crisis between the two super-powers leading inevitably to loss of Soviet control over Eastern Europe, it is possible that the Russian leadership might consider that, given America's reduced reprisal capability, the stake was greater than the risk—and fire off a first-strike.

The above is an example of a *rational* first-strike initiative. The governments of both the United States and the Soviet Union have also had to take steps to ensure that *irrational* action does not lead to war, though it is difficult to evaluate the effectiveness of these steps. They may *minimise* the risk of inadvertent war but they cannot hope altogether to eliminate it, especially in view of the fact that despite such measures as the "hot-line", it is difficult to establish minute-to-minute communication between the top leadership during a crisis —and anything less would leave loopholes for inadvertent war. In any event, a hot-line consultation presupposes a degree of mutual trust between the opposing heads of state and the assumption that they both wish to defuse the situation. If either of the two conditions is unfulfilled or suddenly ceases to apply, the hot-line measures would lose much of their effectiveness.

As has been stated before, all the arguments about mutual

deterrence and other perceptions of nuclear reactions have so far been developed in a purely bi-polar context, a two-person game that presupposed no nuclear interpolation by a third (nuclear) party. It is obvious that in this delicate process, in which the balance of nuclear stability is maintained through a mix of threat and bluff, the main concern of each side is to ensure that the perception that the opponent has of one's own capability and intentions is in fact what one wishes them to have; this is called, in nuclear jargon, establishing "credibility." This is why in nuclear strategy, unlike in conventional war, no side keeps its weapons development successes a secret. The other side *must* know about one's own strength in order to be deterred by it. It is of little benefit to the Americans, for instance, to develop neutron bomb or a cruise missile unless the Russians *know* about it, probably well beforehand. It is only then that the Russians would be more deterred than before—and *vice versa,* as in the *Sputnik* case.

If there is any upset in this delicately balanced perceptions game, the mutual bi-polar stability is liable to be rocked; and one of the obvious ways it can be rocked is by a third party interpolation in the two-man dialectics—or a fourth, fifth... or nth party interpolation.

The third nation to go nuclear was Britain, but Britain chose to keep its nuclear strategy allied to that of the Americans, mainly because much of its missile capability is dependent upon American contribution (as a special dispensation incorporated in the McMahon Act). So, though Britain is a nuclear power, it does not exert a nuclear strategy of its own. It tacitly supports the American line instead. In fact at one time Britain's Labour Party passed a resolution that when it came into power it would dismantle its nuclear force. In the event, however, it changed its resolution and has maintained its nuclear forces, purely as a matter of national prestige. It does not interpolate in the bi-polar debate.

France's nuclear capability is a different matter altogether, because it does interpolate though still as a member of the Atlantic Alliance. During the nineteen-fifties France was one of the Western European nations that argued for decentralisation of the authority to use tactical nuclear weapons to

N.A.T.O. in order to exert a threat of more immediate response than that exerted by Washington. When that was refused the French Generals, who have always wielded considerable power in French politics, persuaded the then Prime Minister of France to go nuclear. Subsequently, under General de Gaulle, the breakaway was pushed even further. France, though still remaining within the Alliance, pulled its armed forces out of N.A.T.O. command and started its own third-party interpolation within the bi-polar scene.

By then the French *force de frappe* had acquired a credible second-strike capability based on submarine-launched nuclear missiles. So France announced its own nuclear strategy which was: should any Russian forces invade *French* territory, with a nuclear or conventional strike, France would automatically escalate to all-out nuclear war and destroy a number of Russian cities, *no matter what the consequences to France.*

Quite obviously this is an irrational, suicidal threat—but the peculiar psyche of Gaullist France, with all its overtones of French grandeur, lent considerable credibility to this threat. When Giscard d' Estaing became President, a dialogue was opened by the United States to dissuade France from this independent stand which introduces some uncertainties into the bi-polar scene in the event of a crisis. For a time it seemed as though the Americans had succeeded and France was on its way to de-emphasise its nuclear credibility; but to date it is the French Generals who have won—and the French stand is basically still valid. However, as foreseen in the recent book by General John Hackett, *The Third World War,** it would appear that French conventional forces would cooperate with their N.A.T.O. counterparts (with whom intimate liaison is still covertly maintained) and France would switch to its independent nuclear deterrence strategy only *in extremis.*

The French interpolation can, therefore, be regarded *a priori* as being contained within the bi-polar ambit; and it will not necessarily create uncertainties except as an *a posteriori* contingency. But in the case of China, the fifth nation to go

*A fictional forecast of operational development in the event of a war breaking out in Europe, written by a former top commander of N.A.T.O.

nuclear, the strategic scene changes to a basically multilateral frame.

At the time when China first exploded a nuclear bomb it was politically antagonistic to both Russia and the United States. The two super-powers therefore regarded the Chinese interpolation as having considerable destabilising potential in the nuclear game because it was feared that by the time China acquired a sizable arsenal, it would be in a position to introduce a host of uncertainties into the existing bi-polar stability.

Foreseeing the hostile reaction from the superpowers that its nuclear capability would cause, the Chinese promptly declared a policy of abjuring first use of nuclear weapons. This was the safest lead for it to make from a position of nuclear weakness (because such a declaration could only be credible so long as there was no alternative). However, the two super-powers at that time possessed so much over-kill capacity in their nuclear armouries that the incipient Chinese programme did not really affect the super-power balance. However, in time the Americans did come to a major policy decision—to work for a rapprochement and accommodation with a nuclear China—a policy that was first launched in the Nixon-Kissinger era and is still being pursued today. The Russians, on the other hand, (if Nixon is to be believed) proposed a pre-emptive "surgical" strike against the Chinese nuclear installations, to take it out of the nuclear game altogether. Because of in-built inhibitions in the bi-polar arrangements such a measure would have had to have American approval and (still relying on Nixon's account) when that was not forthcoming the proposal was shelved.

Because of China's conventional predominance in the Third World scene in Asia, an Asian nuclear strategy for China is unnecessary—for the present. In the super-power game it has only a destabilising potential because unlike France it does not possess (and will not possess for several years) a second-strike capability. By the time it does, it is possible that it will have been drawn in by the Americans into the bi-polar nuclear structure—but that is as yet too conjectural a contingency.

The next country to acquire overt nuclear capability was

India, but it declared from the very start of its nuclear era that its test explosion was part of a purely technological programme and that it would not embark on a nuclear weapons programme. At first this created consternation and disbelief in international circles because so far all nuclear nations had concentrated on a weapons rather than an industrial-technological programme. In fact, the super-powers and other Western nations were even then pressurising other nations with the Nuclear Non-Proliferation Treaty (N.P.T.) the aim of which is to divide the world permanently into two blocs—the nuclear military nations and non-nuclear nations—thus laying stress only on the military value of nuclear power.

India, with a long history of nuclear technological research going back to World War II, appeared like a jack-in-the-box in the middle, announcing that it intended to become a non-military nuclear nation. However, it declared that it would, in the context of proliferating build-up of nuclear arsenals, keep its options open; but for the present it intended to carry on with its nuclear programme along peaceful lines only. Today, when satellite surveillance systems and other electronic measures are able to check on nuclear developments in any country, this declaration has come to be accepted by all nations.

We now come to those countries that have embarked on clandestine nuclear programmes—particularly Israel and South Africa, both of which have by now almost certainly been able to build up limited stockpiles of untested devices. According to authoritative estimates, including that of the Central Intelligence Agency (C.I.A.) of the United States, estimates of the number of such bombs in Israel vary from three or four to as many as twenty: and Israel certainly has the supporting delivery systems to be able to drop those bombs on almost any target within its strategic environment.

The goal of American-Israel policy in West Asia has always been to create a balance of power in the Arab-Israeli setting—but with this proviso that "balance" in this context connoted an Israeli margin of superiority—a margin that it demonstrated during four wars. As early as 1965, Abba Eban,

then Israeli representative at the United Nations, defined Israel's strategic objective as: "We want to create doubt, and eventually resignation and despair, about the [Arab] dream of eliminating Israel from the world's map."

The October war of 1973 and subsequent developments have shown, however, that time now favours the Arabs as far as the future (conventional) balance is concerned. Despite its recent treaty with Egypt, Israel still has to reckon with the tremendous potential of Arab wealth and influence, to which has now possibly been added support from Iran. In this situation the only means of restoring the "balance" is for Israel to exert a nuclear deterrent threat to counter future Arab belligerency.

In normal circumstances, it would be necessary for Israel to demonstrate to the Arab world that it possesses the nuclear bomb, because as we have seen it is only this demonstration of threat that makes a deterrent credible. But here the nuances are somewhat different. The Arab-Israeli confrontation is not an autonomous system; rather it is, in a strategic sense, a sub-system of the super-power balance of power, because of the close alliance (amounting almost to integration) between Israeli and United States strategic policies; and also because of the Soviet support to states such as Syria and Iraq. Israel decided, therefore, to exert a nuclear role based on *uncertainty* rather than *certainty*—a course that the Americans, presumably, favoured anyhow. The nuclear alert at the tail end of the 1973 war is an example of how the super-power nuclear dialogue proxies for the implied Israeli nuclear threat during a crisis. The same "alert" would have been called had Egypt, say, on 15 October, broken through Israel's depth defences in the Sinai and approached too near the Israeli border.

Nor would this nuclear balance strategy greatly alter if the Arabs somehow found access to a nuclear armoury. In that case a mutual deterrence game might start, leading eventually to a MAD doctrinal balance, on a mini-scale, between the Arabs and Israel. This might not be able to halt an endless series of border raids and other limited actions, but a full-scale war to "throw the Jews into the sea" would be effectively deterred.

In the case of South Africa, the scenario is different again. The black-versus-white minority confrontation is not perceived as a sub-system of the super-power balance in the nuclear sense. In this case South Africa, the *status quo* power, would not hesitate to retaliate on a nuclear level if it were seriously threatened by the conventional forces of a future coalition of black African nations. So far there is no such credible threat; but should it develop, it is certain that South Africa would first demonstrate its nuclear capability by exploding a bomb in the Kalahari and then, if the threat continued and endangered the existence of the state, carry out a nuclear reprisal against black African targets.

From the preceding review of nuclear strategic developments and likely contingencies it will become evident that the reassuring and comfortable sense of nuclear security, that the world has gradually slipped into as a result of more than thirty years of a state of continuing mutual rivalry and no-war stability between the United States and the Soviet Union, does not necessarily indicate that no nation would ever again drop a nuclear bomb on an enemy. The inhibitions imposed on the antagonists are not based on humanitarian, moral, legal or economic factors, but on the strategic condition of perceived mutual deterrence. It is only when one's own use of the bomb is threatened with reprisal by the enemy's nuclear power that nuclear security exists, and even then this is only an empirical deduction, not an absolute truth. But in cases when only one side has a nuclear bomb in a critical confrontation situation, there is every likelihood of the bomb being used—be the user black or white, Muslim or Jew, communist or capitalist—as was indeed demonstrated over Japan in 1945.

# 6

# MILITARY IMPLICATIONS OF A PAKISTANI BOMB

ESTIMATES OF how long it will take Pakistan to explode its first device vary from six months to three years: so it would not be unreasonable to forecast that within three to four years Pakistan will possess a minimum nuclear capability. It may not have a missile delivery system by then, but its Mirage bombers would give it all the range it needed for the exercise of an "Islamic" nuclear threat in the Indo-Pak strategic environment.

The point to be examined at this stage is whether an "Islamic" nuclear bomb or an "Islamic" nuclear threat is a valid strategic concept. Till now nuclear capability has been regarded and treated by each of the five nuclear weapon powers as a purely *national* military potential. There have been many examples of international alliances, including joint military forces, in the conventional context—but not in the nuclear. For instance, the assigned armed forces of the Atlantic Alliance are earmarked to operate under one Supreme Commander in the event of a war. They have a common operational plan, for conventional forces, known to all the members of the alliance. This is not so in the case of nuclear forces. In N.A.T.O. planning, though the single most crucial element in Allied strategy is the nuclear deterrent,

American nuclear plans—that is, how and when the various components of the American nuclear forces would be used as a part of battle mechanics—have never been made known to the other allies. All decisions on N.A.T.O. nuclear strategy have been unilaterally taken by the U.S.A. without consulting its allies. Not one nuclear bomb belonging either to the Americans or to the British or to the French has ever been released to the Supreme Commander for his own battle mechanics, to use or to threaten escalation. As we have seen, this was the reason why France decided to go nuclear, and having made that decision it had to pull its forces out of the Alliance in order to exert its own "national" nuclear strategy. In many ways the conventional elements of French armed forces even today maintain operational liaison with other Alliance forces, particularly in the Central German sector, but not so with its nuclear force. Here there are no common plans, no sharing of secrets.

Bhutto introduced an entirely new concept in nuclear strategy by suggesting a common (international) "Islamic" bomb. Although this concept cuts across the theories and applications of nuclear strategy that have so far been empirically developed—in the context of bi-polar dialectics—there is a germ of credibility in the Bhutto theory.

Islam's philosophy has always held an appeal that transcends national borders. The Islamic concept of brotherhood and equalitarianism embraces all Muslims of all races. The original conquerors, who burst out of Arabia the year after the Prophet's death, were Arabs, but the armies that eventually subjugated an astonished world stretching from the Atlantic to the heart of China were not all Arabs: the Arabs were too few in number. For example, when the Muslims crossed the Straits of Gibralter in 712 A.D. and conquered Spain, the majority of the soldiers of Islam were converts from the North African Berbers. Eventually, when the Empire reached its full extent, only 1 per cent of its inhabitants could trace their descent from the Arabs: but all the subject peoples, provided they had converted to Islam by merely reciting the muslim creed—"There is no god but God and Mohammed is his messenger"—were treated as the social and political equal of the

conquerors, be they Negroes, Franks, Greeks, Persians, Indians or Chinese.

Even the Caliphate eventually moved out of Arabia to Turkey. Although other kingdoms had by then been established—the Fatimids of Egypt, the Moors of Spain, the Shia Saffavids of Persia—the Ottoman Caliphs still contributed significantly to the continued development of Islamic polity. It was only the tidal wave of nationalism following World War I, coinciding with the end of the Caliphate and the rise of the Young Turks, that inspired the various races and regional societies to free themselves and establish their own separate national identities.

Today the phenomenon of resurgent Islamic fundamentalism appears to offer an alternative—the reversal of the process of nationalism. Whether an Islamic polity cutting across national borders is any longer a viable concept can be endlessly debated. The fundamentalists proclaim their intention to move towards the establishment of a closely knit Islamic bloc in south-west Asia, stretching from the Indus valley to the Mediterranean. The basic rivalries between Shias and Sunnis and between the conservative and the radical states would still exist, but the presence of a common enemy could offer the possibility of establishing a shared Islamic strategy. Certainly this must have been the line of argument that Bhutto used with his influential Arab friends. It would not have been beyond his persuasive powers to convince King Khalid or Colonel Gaddafi that a Pak-originated nuclear armoury could form the strategic base for an "Islamic" nuclear confrontation with Israel so that the Islamic bomb of the twentieth century would play the role that the "Sword of Islam" played in the seventh.

After all, it was not necessary for Bhutto himself to believe in such a concept: all he wanted was to take his gullible Arab friends for a ride. The money had to come from them, so why not enthuse them with the concept of a common Islamic bomb? If Colonel Gaddafi could be naive enough to send his deputy round the world on a purchasing mission for nuclear bombs, it could not have placed a severe strain on Bhutto's great intellect and charm to wheedle the wherewithal out of

the Arabs in exchange for promises of a jointly owned bomb.

However shabby and ruthless his political methods, Bhutto was an intellectual giant, and like many intellectuals he possessed both arrogance and vision. He made no secret of his belief that the Pakistanis were the only Islamic people that had the brains, education and culture to lead an Islamic bloc of West Asia. Only lack of wealth and resources prevented it from assuming its ordained role. The nuclear bomb was going to give him that role: as the controller of nuclear strategy on behalf of the Islamic bloc Pakistan would become its accepted leader, and he a latter-day Caliph. It must have been supremely galling for him, during the last year of an otherwise brilliant life, to find that grand vision blotted out by someone he considered a mediocre, sycophantic soldier of little political account. And this brings us to the question that will concern us so greatly: how will that "mediocre militarist," or his successor, react once he has a nuclear press button to play with on his desk at Islamabad?

We have seen that nuclear stability has so far been arrived at through a long and sophisticated dialectical process with a highly sensitive lexicon of its own resulting in a code of conduct otherwise known as mutual deterrence. But this is a two-person game, with an elaborate and largely unwritten code by no means automatic in its operation. The dialogue is such that it at once divides and unites the two nuclear antagonists because of the realisation that a nuclear war between them would be so devastating as to make survival of either nation as a viable society a doubtful issue. Thus, the understanding between the two powers regarding a mutual, tacit consent not to resort to a nuclear initiative becomes mutual in political terms also. Furthermore, the vocabulary of deterrence is shared, even in the context of radically different national values.

In the case of the Islamic bomb, there is no tradition of strategic communication, no established lexicon for such negotiation, neither between the Arabs and Israel nor between Pakistan and India. One could argue that in the Arab-Israeli confrontation, which would be a situation of nuclear symmetry with both sides possessing a credible nuclear first-strike

capability in a limited strategic environment, some form of nuclear negotiation could lead to a code of conduct inhibiting a nuclear first-strike. On the other hand, it could also be argued that since both sides would be equipped with first-strike capability only, stability of deterrence would not be achieved. There would be strong pressures to launch a disarming first-strike; and with Israel's limited area and dense population centres, that nation would be particularly vulnerable. This in turn might lead to Israel's acquiring second-strike (sea-based) capability.

But in the case of Pakistan and India, where Pakistan would enjoy the advantage of nuclear monopoly (if the Government of India continues with its present no-weapons nuclear policy) it would be entirely unnecessary for Pakistan to start a nuclear dialogue with India (other than a direct nuclear threat). There may well be inhibitions that might restrict Pakistan to a degree—such as international pressures or even restraint from the Islamic bloc—but it is a debatable point whether these inhibitions would be so compelling as to preclude Pakistan's use of atomic bombs against India in a severe crisis. say, an impending defeat in a conventional war against India.

India was the originator of the non-aligned concept, a policy that caused some discomfiture to both the Western and the Eastern blocs at that time. To this day India follows a strictly non-aligned policy in international ideology and politics; and it is not a member of any military alliance. In these circumstances, we cannot rely on nuclear support from any of the big powers, particularly since such support would be likely to upset their own nuclear equations with nuclear adversaries. Perhaps a nation with which we have a treaty of friendship would support us (in kind) if we were to become involved in a conventional war; but a nuclear involvement is a different matter, not a risk it would take on India's behalf. This situation was amply demonstrated when on two occasions in the past India unsuccessfully sought nuclear guarantees from the super-powers. The first was during Lal Bahadur Shastri's premiership, and the second, in 1967, just before the finalisation of the Non-Proliferation Treaty.

As regards opposition from the Islamic bloc to Pakistani

nuclear adventurism, it is possible that such a restraint would be exercised once some form of Islamic Nuclear Consultative Group is set up following the availability of an Islamic bomb. Pakistan, however, would have a valid argument against that too. It would not be difficult for it to persuade the Islamic nations that the liberation of muslim Kashmir should be regarded as a *jihad*, a holy war of Islam, which would justify the threat of the use of the Islamic bomb against India. In any event it would obviously be in a position to go it alone if all else failed, and under an unstable, militaristic form of government the restraint consideration would be minimal.

It is not that having acquired a minimum capability Pakistan would automatically launch an invasion across our border, using nuclear weapons to bomb Indian targets. Even an unstable military government would seek a more sophisticated scenario than that.

Pakistan has always been determined to wrest Kashmir from India, and twice it has tried to settle the issue by force of arms. On each occasion its efforts have been thwarted by the people of Kashmir and by the superiority of Indian arms. Furthermore, on both occasions Pakistan has been prevented from committing larger forces to the Kashmir front because of the threat from India to Pakistani territory itself, that is, in West Punjab and Sind. Once Pakistan acquires nuclear capability this strategic situation would change.

Pakistan could declare that it intended to use its nuclear weapons in a defensive capacity only, that is, as a deterrent to an Indian attack on Pakistani territory. This declaration of nuclear intent would enable it to de-emphasise the conventional defence posture, thin out the divisions at present defending the Lahore-Multan fronts and the southern sector and concentrate the divisions thus made available for the *coup de grace* in Kashmir.

We have seen in the past that most nations, and particularly Western nations, have always supported Pakistan over the Kashmir issue: they would be unlikely to rush to our side. Similarly, India could no longer depend on those West Asian nations that have in the past given us their declared support or their votes in the General Assembly on the Kashmir question.

And even if they did raise their voices, who in Islamabad would pay heed in the long-awaited moment of expected military victory in Kashmir?

What we have to consider is how this nuclear-cum-conventional threat would affect India from the point of view of overall national strategy and, thereafter, how it would affect the armed forces strategic and tactical doctrines.

First of all, it is necessary to dispose of the oft-quoted conventional wisdom that the nuclear bomb is not meant to be used; the reasons usually advanced are that a nuclear bomb would be self-deterred; and that a nation that does use it would become an international pariah. But these arguments do not stand rigorous scrutiny in the light of recent historical experience.

The factor of self-deterrence operates only in situations where there is nuclear weapon symmetry: it is not likely to operate in situations of asymmetry. Secondly, the odium attached to killing a large number of people can be overstated. When American bombers killed off a million Vietnamese, using the equivalent of tens of megatons of bombs (more than all the explosives used in all of military history) and chemical warfare weapons, there was no significant disapproval from the world community. Nor did the genocide campaign unleashed in Bangladesh make Pakistan an international outcaste. If Pakistan were in the future to use an atom bomb and destroy an Indian city, all that is likely to happen is that the Security Council would meet and call for a cease-fire and send a representative of the Secretary General to visit the subcontinent to persuade the two parties to start negotiations.

The present national strategy of India centres on, firstly, a military balance in conventional forces vis-a-vis Pakistan; secondly, a degree of conventional superiority subsequent to the outbreak of war, taking into account General Staff management of force levels as allotted between the Pakistan and Chinese fronts; and, thirdly, stemming from the second point above, the deterrent conventional threat of a reprisal counter-offensive across the Indo-Pak international border.

It is the third point that has till now formed the Indian conventional deterrent, but in the nuclear-conventional scen-

ario described previously, this deterrent would not be credible because we would not dare unsheath it, in case in the process Ambala or Jodhpur or Ahmedabad were totally destroyed. In other words, *our national strategy would have to adjust to the condition that Indian arms must not launch an offensive against Pakistan; even perhaps that in a defensive battle Indian arms must not inflict a decisive defeat on Pakistan.* In these circumstances would it be strategically feasible to hold Kashmir? Perhaps so, but much thought would have to be given to the subject to devise a doctine whereby effective tactical denial is not perceived as a strategic defeat for the invader, or that the will of the people of Kashmir and of the troops defending them is not undermined by the terror of a nuclear holocaust.

India's defensive strategy against a likely nuclear conventional attack by Pakistan must aim, at the first priority, to minimise the actual nuclear threat. In this case Pakistan's weak point will be its limited delivery system, because for a considerable time to come its only recourse will be the fighter-bomber, of which the Mirage is the most suitable. This lack of flexibility offers India's defensive strategy a reasonable chance of interception, certainly for any depth targets.

In order to provide complete protection against nuclear attack, the defender's aim will be to achieve 100 per cent interception capacity. Such an aim is of course almost impossible to attain, whatever the density of SAM cover (surface-to-air missiles) we are able to afford. In the Egyptian Canal Zone defences just before the 1973 war, the interlocking system of SAM-2s, SAM-3s and the mobile SAM-6s (together with the hand controlled SAM-7s) had provided a near fool-proof interception capability, but only in the conventional setting, where a single aircraft breaking through would not have made a crucial difference. In the nuclear context, a single aircraft breaking through *could* make *all* the difference. However, if we could achieve a near-100 per cent interception capacity, we would have reduced the chances of nuclear attack quite considerably because only a very small proportion of Mirage sorties would be nuclear-armed. It is those few that we have to prevent from breaking through.

The degree of immunity from atomic air attack would, of

course, diminish in inverse proportion to the proximity of the target to the border. Chances of short-range penetration are almost impossible to bring down to zero because opportunities and the time available for interception are less; hence cities like Amritsar or Pathankot or Ferozepur would be more vulnerable. However, this would be offset by the fact that the closer the target to Pakistani home territory, the less the danger of nuclear attack because of the possibility of a radiation back-lash to Pakistan's own population centres. It might therefore be estimated, given a minimum effectiveness of our SAM-cum-interceptor defensive cover, that the most likely planned targets for the enemy would be those at medium range from the Pakistani border, say beyond 50 miles but less than 200. However, in those theatres of operation not covered by dense SAM-interceptor cover, such as in south Rajasthan or in Gujarat, the likely bombing range could increase to 250 or 300 miles, thus bringing cities like Baroda and Ahmedabad within nuclear attack range. These factors would have an important bearing on our defensive strategy, force levels and deployment.

Another likely limitation would be a political one, in that the enemy would be less likely to use the atomic bomb against muslim majority areas, which (together with the terrain consideration) would rule out most of Kashmir territory. By a combined elimination process from these two factors—and the limited penetration factor—it would be possible further to narrow down likely target areas. Thereafter, the only strategic recourse we would have would be to affect such a degree of conventional defensive superiority that an actual Pakistani take-over bid and physical occupation could be rendered unlikely, anywhere, regardless of the casualties they could inflict by atomic bombardment.

This leads us to the next step, the formulation of a nuclear-conventional tactical doctrine that would complement a strategic defensive policy such as above. If the Indian armed forces are able to recast their organisation, equipment and tactics to correspond to nuclear-dominated battle conditions they would be able to minimise the enemy's advantage of possession of nuclear bombs.

It is necessary here to consider briefly the tactical factors that affect a nuclear-dominated battlefield. Firstly, the attacker is compelled to operate in the open, whereas field fortifications offer the defender a degree of protection against blast, heat and radiation effects. Furthermore, the defender can be physically dispersed, whereas for the attacker dispersion is counter-productive because his aim is to seek to force a decision by *concentrating* his forces at the point of attack. The defender also needs to effect concentration, but not necessarily physical concentration; he can concentrate fire at the crucial point while remaining dispersed in dug-in positions.

This does not mean that the Pakistani forces would find it hard to concentrate for attack. In the asymmetric nuclear situation, in which only the Pakistanis possess the bomb, it would mean that *they* would always be able to plan and carry out an attack wherever they chose, though they would not be able to use a nuclear bomb for close support of the attack. The restrictions would apply only to the Indians, for whom a counter-offensive, normally an integral part of defensive tactics, would be ruled out at all levels except perhaps at battalion or at most at brigade level (because any larger concentration of forces would form a worthwhile nuclear target and therefore invite atomic bombardment). The conduct of the defence would have to be almost completely restructured to counter-attack by fire—the static war *par excellence*. A further reason why a large-scale counter-offensive would be impossible is that such an operation, to be fully effective, must work up momentum from depth—and the proximity factor makes a depth target more liable to nuclear bombardment than a front-line one.

Another important consideration is the nature of the dispersion to be planned. The blast pattern of a nuclear bomb carries its own restrictions, at least in a tactical setting. A 20-kiloton bomb, for example, has a devastating effect within a circle of about 2,500 metre radius, but this is an over-kill capability for that area of a battle-field. The atomic bomb does not have the flexibility of, say, two thousand ten-ton bombs released separately and targeted more widely. Furthermore, the effect of such an atomic bomb would be devastating only if

the defender's dispersal is also an area dispersal, but if the defender resorts to *linear* dispersal, the effect of the bomb would be considerably reduced. Thus, a defensive system where the defenders are dispersed in a series of linear defences stretching across the front, each line separated from the next by, say, a mile, would nowhere form a worthwhile nuclear target. Or, if a bomb were dropped on such a target its destruction effect would be minimised.

Faced with such a situation, tactical doctrine would have to cater for a linear defensive lay-out with a completely static posture but possessing the power to concentrate fire from separated localities to a series of pre-selected likely enemy concentration areas. This in turn would necessitate a drastic change in our present force organisation, that is, the divisional and brigade systems. In atomic battle, each dispersed defended locality would need to be a *permanent* and perhaps *ad hoc* mix of armour, heavy artillery, field artillery, infantry covering forces and other complements, with its own reorganised cybernetic system for appropriate command and control. These are the considerations that led to the reorganisation of field formations in N.A.T.O. and the Warsaw Pact armies during the fifties and the sixties.

The above formulations, of course, are overwhelmingly theoretical and of a rather elusive nature. The fact, however, remains that whatever tactical doctrine we adopt in order to prepare for a possible nuclear-dominated battle-field it will have to be based on theory and conjecture. The real influence of weapons can only be determined after a degree of experience. But in the case of nuclear weapons if we depend upon experience to evolve a new doctrine, we might find that at the first battle it is already too late. It is the first battle that will have to be successfully fought according to an effective (even if theoretical) doctrine.

One of the drawbacks that theoretical doctrinal planning will suffer from is the "before-and-after" factor. Any particular doctrine devised for atomic battle would suffer from disadvantages *before* the battlefield in fact becomes atomic, and, yet, if we do not convert to that doctrine from the initial stages of a war (in the hope that it may start with and remain at the

conventional level) we would invite heavy and perhaps unacceptable casualties when the war does become atomic. In a bi-polar nuclear situation, we would have had some say in, and control over, "crossing the threshold"; but in the present case the initiative would rest entirely with Pakistan. We would therefore have to *assume* the worst case and adopt to tactical nuclear postures from the start.

To revert to the theory of linear dispersion in atomic defence, if this doctrine is found to be valid we might find the static defence posture greatly resembling the trench warfare system of the 1914–18 war with two differences. Firstly, there would be big gaps between posts (trenches) because of the necessity of dispersion and, secondly, the enemy would not be required to adopt a reciprocal posture. It would, in fact, become a "one-sided" static trench system facing a deep no-man's-land (because the enemy, who possesses the latitude, would want to maintain an adequate distance from the defenders in order to retain the option of dropping a nuclear bomb on the first line of defences). In one sense this would lead to a Maginot line mentality and posture for the defenders, as in France in 1939–40.

This form of defensive tactics, which would aim to counter a major set-piece offensive by opposing it with heavy concentrations of fire and precision guided munitions, would of course lay itself open to infiltration tactics by small bodies which could slip through unobserved between the widely dispersed defended posts, especially at night. However, in the topsy-turvy value assessments of an atomic battlefield, it might be one of the aims of the defenders to *invite* such infiltration, because the "infiltrated areas" would thereafter become immune to the enemy's atomic bombardment. Therefore if the rear (logistical) areas could be protected by organising them into self-contained keeps, an infiltrating enemy could actually turn out to be a nuclear asset, particularly in a war of short duration such as a future Indo-Pak war is almost certain to be because of the high attrition rate and other considerations.

Strategic and tactical matters apart, the greatest effort will be required in preparing not only armed forces personnel but the border people also, both physically and psychologically,

for nuclear war. This will mean, firstly, provision of protective clothing, passive nuclear defence measures and, specially, counter-radiation methods and equipment.

Atomic war will be an entirely new concept in the armed forces where military training has, in the past, not even touched upon this subject. The only equipment we have with built-in counter-radiation facilities are the tanks and armoured personnel carriers we received from Russia. In future, all equipment earmarked for deployment in nuclear threatened areas will have to be reviewed for counter-radiation facility.

If physical effects of atomic weapons are insufficiently known, the degree of their psychological impact is even less so. If steps are not taken well beforehand to make a study of this aspect of nuclear war and to effect counter-measures to build up the morale aspect through scientific means, the mechanical aspects of strategic and tactical doctrines would stand to lose their effectiveness because of lack of will to carry them out under threat of atomic bombardment. This is all the more important today when the human factor in any case has become de-emphasised because of mechanical warfare, in which the role of the man becomes less crucial compared to the gun he fires or the equipment he uses. Modern arms and modern techniques tend to swamp what Marshal Saxe called the "sublime" factor in war, and the sublime factor in a war against the unknown could only be guaranteed to function decisively if it has been psychologically prepared for the unknown.

# 7

# UNAVAILING APPROACHES

PAKISTAN'S ATTEMPT to make an "Islamic" bomb has led to fresh efforts by the Western non-proliferation lobby to pursue vigorously the Pakistani proposal for a nuclear free zone in South Asia and thereby to restrain both India and Pakistan from exercising their nuclear options. In his reply (of 3 March 1979) to Prime Minister Morarji Desai's letter expressing concern about Pakistan's attempts to go nuclear, General Zia-ul-Haq has reiterated the Pakistani proposal for a South Asia nuclear free zone. (The proposal was mooted originally by Pakistan in 1974 and has since then been brought up before successive General Assembly sessions.) Zia also offered to sign a joint declaration with India renouncing manufacture and acquisition of nuclear weapons. We must examine whether either of these two approaches offers a solution.

India has rejected both proposals. India's opposition to both nuclear weapon free zones and a joint declaration is a principled one. Morarji Desai, addressing the Special Disarmament Session of the U.N. General Assembly in June 1978, argued that agreement to the nuclear weapon free zone proposal would imply acceptance of the fact that "other zones would continue to be endangered by nuclear weapons." He also stressed that the proposal to make a small geographic

zone free from nuclear weapons would not provide real security against the global threat posed by nuclear weapons.

Secondly, India has already declared unilaterally that it would not manufacture or acquire nuclear weapons. Therefore, with a view to creating mutual confidence and a sense of security it would be only appropriate for Pakistan to make a similar declaration.

Pakistan has not spelt out the implications of a joint declaration, but it would appear that implied in the proposal is the principle of mutual inspection. In other words, Pakistan wants to impose on India the same discriminatory safeguards that India has always resisted. The proposal is not acceptable to India because of its discriminatory aspects as in the case of the N.P.T. or in the full-scope proposals of the United States.

However, since the proposal for a nuclear weapon free zone had been made in the U.N. General Assembly and since a lot of misleading propaganda on it has been spread, it is necessary to analyse the implications in some detail. Proposals for a nuclear weapon free zone have been made from time to time in various areas of the world. These include the Romanian proposal for a Balkan nuclear weapon free zone, the Soviet proposal for a Mediterranean zone, the Finnish proposal for a Nordic zone, the Chinese proposal for an Asia-Pacific zone, the Polish proposal for a Central European zone, the African proposal for a zone in Africa, the Iranian proposal for a Middle East Zone, the Pakistani proposal for a South Asia zone and the Latin American proposal. So far only the last one has been formally constituted as a nuclear weapon free zone under the Treaty of Tlatelolco. All others still remain in the realm of proposals.

According to William Epstein,*

> The Soviet Union and its allies have favoured the creation of nuclear-free zones in various parts of the world, but they have placed particular emphasis on Central Europe and on those regions where the two-great-power blocs confronted each other (Central Europe and the Mediterranean), where

**The Last Chance,* Free Press, 1976.

the danger of nuclear conflict seemed greatest. The purpose of such zones, for them, was to reduce the American nuclear presence and its potential threat to them. The United States and its allies, however, considered that these proposals would give some military advantage to the Soviet Union. They conceived of such zones chiefly in the context of preventing the spread of nuclear weapons and laid down certain principles regarding their creation: (1) that they should not upset the existing military balance; (2) that they should be initiated by the states concerned in the region; (3) that they should include all the countries of the area, if possible, and at least those with significant military power; and (4) that they should be subject to verification to ensure that the zone would remain nuclear-free.

It is pertinent to note that when India suggested applying the same principles to the proposal for setting up a South Asia nuclear weapon free zone, the Western powers scoffed at India's suggestion.

The most important among the proposals for nuclear weapon free zones was that put forward by the Polish Foreign Minister Adam Rapaecki in 1957—that Poland, Czechoslovakia, East Germany and West Germany should form a nuclear weapon free zone. This was rejected by the Western powers. Subsequently, Rapaecki submitted a revised proposal in which, in the first stage, there would be a freeze of nuclear armaments, and, in the second stage, a reduction of conventional forces would be carried out together with complete denuclearisation of the zone. This too was rejected by the West. In a subsequent proposal, Poland suggested an enlarged nuclear weapon free zone open to various European countries. This too met with the same fate as the earlier ones because of the intransigence of the Western bloc. In 1964 the Polish Prime Minister Gomulka proposed a plan for freezing, at the existing levels in the area of the zone, all nuclear weapons "irrespective of the means of their employment and delivery" under a system of control posts at nuclear plants and at rail, road, sea and air points of access. This proposal was also found unacceptable to the Western powers.

What is significant is that the Western powers were not prepared to entertain the idea of a nuclear weapon free zone in an area where the possibility of nuclear conflict was the highest. The obvious implication is that a nuclear weapon free zone is not, in their view, a measure intended to achieve nuclear disarmament.

The Treaty of Tlatelolco, signed in 1967, originated in a joint declaration of five Latin American states in 1963. This declaration by Bolivia, Brazil, Chile, Equador and Mexico in April 1963 followed the Cuban missile crisis of October 1962, which was precipitated by the transfer of Soviet nuclear missiles to Cuba. In other words, the original declaration and the subsequent treaty were meant to prevent a nuclear power, other than the United States, from bringing its nuclear influence into the Western hemisphere.

The spirit underlying this idea was a projection of the nineteenth century Monroe doctrine, under which President Monroe of the United States declared that the United States would not tolerate any outside power intervening in the affairs of the Western hemisphere. The Monroe doctrine laid the foundation on which United States imperialism in the Western hemisphere was erected. The Latin American nuclear weapon free zone is a nuclear version of the Monroe doctrine —to perpetuate United States hegemony and to prevent external powers from posing a nuclear threat to the United States security from the Western hemisphere.

Important states like Argentina and Brazil have not ratified the Tlatelolco Treaty because the Treaty in its interpretation by the majority of the states subscribing to it and the United States (which is the guarantor of the Treaty) prohibits peaceful nuclear explosions. The Cuban objection to joining the Treaty is also significant. Cuba demanded that the United States should not use the Guantanamo facility (which it still occupies in Cuban territory) as a base for nuclear carriers. The refusal of the United States to accede to this demand would indicate that the purpose of the Treaty was not so much to achieve denuclearisation as to exclude possible Soviet nuclear intrusion into the region.

The signatories to the Treaty have had to seek guarantees

from the nuclear weapon states that nuclear weapons would not be used against them. What this really comes to is that the nuclear weapon countries first get their weapons legitimised and then make the Latin American states acknowledge their hegemonic status. The irony is that this nuclearised version of the Monroe doctrine is very often held out as a model for nuclear free zones elsewhere and as a classic example of a nuclear disarmament measure.

There has been no progress on the Balkan, Nordic, Asia-Pacific and various other nuclear weapon free zones. Furthermore, despite the fact that in August 1977 South African preparations to carry out a nuclear test were discovered and stopped as a result of pressure from the super-powers, especially the Soviet Union, it is significant that no realistic attempt has been made to declare a nuclear weapon free zone in Africa. In sub-Saharan Africa the only country with nuclear ambitions (if not capability) is South Africa, isolated internationally and extremely vulnerable to pressure from the Western nations. But the United States, though in the forefront of the non-proliferation crusade, has taken no steps to promote an African nuclear weapon free zone.

South Africa is a settler state like Israel. Like Israel it believes that eventually it will have to rely on nuclear weapons to deter pressures from the Black African states, especially after the liberation of Zimbabwe and Namibia. There is little doubt that despite officially declared policies in the United States and in West European countries, some sympathy for South Africa still exists, and it affects the official policy. This is why the West has turned a blind eye not only to the Israeli-South African nuclear collaboration but also to the West German-South African collaboration through which, we now know, South Africa found access to uranium enrichment (through the Becker nozzle-separation process). Even eminent protagonists of non-proliferation such as Willy Brandt and Helmut Schmidt have officially connived at the transfer of German nuclear technology to South Africa.

The West has never been unduly enthusiastic about the proposal for a Middle East nuclear weapon free zone. In any case the United States could not, with any credibility, initiate

steps to declare the Middle East a nuclear weapon free zone when the Intelligence documents of the United States had revealed that they were fully aware of Israel having become a nuclear weapon country—probably since 1968 and certainly from 1974. There is a conspiracy of silence in the American Press, in Congress and in academic circles regarding Israel's nuclear status. It will be interesting to find out, now that Egypt and Israel have signed the peace treaty, whether the United States would be in a position to induce Egypt and Israel to sign and ratify the N.P.T. These two countries have not put forward any basic or principled objections to the N.P.T. Consequently, with the signing of the peace treaty under the patronage of the United States, the only argument implicit in their non-accession to the N.P.T. has lost much of its significance.

Before China discovered in October 1964 that nuclear weapons were not "paper tigers" after all, Prime Minister Chou En-lai had put forward a proposal for an Asian-Pacific nuclear weapon free zone (in 1963). This proposal is of some interest to India because recently the Indian Foreign Minister, while commenting on the futility of a restricted and artificial South Asia nuclear free zone, recommended that the Chou En-lai proposal could be revived. When Chou had originally proposed it he evidently envisaged a nuclear free Asia including Asian Russia and the whole of China and Japan. In such circumstances, China is not likely to show any interest in the revival of Chou's idea. The reason why China had mooted this proposal was to keep American nuclear weapon carriers away from South Korea, Japan, Taiwan, the Philippines and some Pacific islands and also to ensure that the Soviet forces in the east would not be armed with nuclear weapons. When the Chinese realised that it was no longer possible to achieve that, they lost interest in the proposal. As has happened in so many other cases, China also has totally changed its stand and now talks of a tacit alliance between the United States, Japan and China.

Underlying this is China's growing pretensions to great-power status, particularly with regard to exercising hegemony. The frequent declarations of China that it would not behave

like a super-power are in fact an oblique way of asserting that it is in a position to behave like one. The recent Chinese invasion of Vietnam, after repeated declarations of their intention to "punish" Vietnam, reminds one of the behaviour of the European powers which set out to punish China during the Boxer Rebellion. The Chinese behaviour towards Vietnam and the Indochinese states, their attitude towards the overseas Chinese, their laying down of norms about the relationship among the countries of South Asia and their support to Pakistan over the nuclear weapon free zone (implying a permanent non-nuclear status for India), all indicate that China bears towards South and Southeast Asia the same kind of great-power hegemonic attitude as the United States has towards Latin America.

To revert to the South Asian nuclear weapon free zone, India has sought to apply the same four principles which the United States and the Western powers propounded in regard to Central Europe. India, therefore, insists that the proposal should be initiated by the states concerned in the region. Pakistan has not so far sought to discuss this proposal in the regional context.

According to India, a nuclear weapon free zone proposal should include all the significant nations of the area. In other words, there cannot be a South Asia nuclear weapon peace zone without China being brought into it. It is likely that the Chinese would argue that they cannot participate in a nuclear weapon free zone when Soviet divisions armed with nuclear weapons are deployed on their border. This perhaps is one of the reasons why the Indian Foreign Minister has referred to the *Asian-Pacific* nuclear weapon free zone, implying that the Soviet Union should also be brought into the arrangement.

The cardinal principle of the nuclear weapon free zone, according to the United States and the Western powers, is that it should not upset the existing military balance. Since China is blocked on the north and west by the Soviet Union it is in a position to exercise its big-power role only in south and southeast—a nuclear free zone restricted to South Asia would tilt the military balance overwhelmingly in favour of China.

The attitude of the Western powers in voting for the South

Asian peace zone, having rejected a similar plan for Central Europe, is in line with their proclaimed view that they have special security needs implying that the non-white nations do not. It is difficult therefore not to conclude from such attitudes that Western approaches to the nuclear first-strike doctrine and their recommendation of nuclear free zone to all parts of the world other than Europe are in fact facets of a subliminal racist approach.

The Indian objection to the regional nuclear free zone is not only that it seeks to legitimise nuclear weapons but that seeking guarantees from the nuclear weapon powers creates an unequal relationship of protector and protected among the nations of the world. India's efforts in the last thirty years have been directed towards delegitimising and eliminating nuclear weapons from the arsenals of the world. India can, therefore, never subscribe to any arrangement which would legitimise nuclear weapons in the possession of a number of privileged countries of the world.

India cannot also subscribe to the implications of the acceptance of the hegemonic status of the nuclear weapon powers implied in the seeking of guarantees. In this country we have historical memories of the Subsidiary Alliance system of Lord Wellesley which guaranteed the security of the Indian native states.The Indian States were required to maintain British garrisons against an assurance of security from the East India Company and to accept the doctrine of paramountcy of the British crown. The N.P.T. and the nuclear weapon free zones are the twentieth century versions of Lord Wellesley's Subsidiary Alliance system and the doctrine of paramountcy.

During the first three decades of its existence Pakistan collaborated with the imperialist powers; it has only recently pulled out of military alliances with them (mainly because the withdrawal of Iran from the C.E.N.T.O. in the aftermath of the Khomeini revolution left Pakistan with no other choice). It is, therefore, not a fortuitous coincidence that Pakistan is promoting the idea of a regional weapon free zone in South Asia which, in fact, would be in the interest of the hegemonic powers such as the United States and China. It is also

significant to note that this is being canvassed at a time when Pakistan is being introduced as a Trojan horse into the nonaligned movement.

It was a Pakistani scholar who pointed out that the nuclear weapon free zone proposal of Pakistan is actually a cover for its going nuclear:

> Pakistan will continue its efforts to embarrass India in international forums by demanding that South Asia be made a "nuclear free zone of peace", that India should open its nuclear installations to international inspection and that India should never undertake the production of nuclear weapons. By making these demands, some of which are unacceptable to India, Pakistan hopes to gain international support for its position and provide an excuse for going nuclear itself at a later date.*

Bhutto too has clearly implied in his testament that once the French reprocessing plant would have been commissioned his intention was to reprocess the KANUPP fuel rods, in clear violation of all treaty obligations.

The exercise of Chinese hegemony over South Asia is already evident. Bangladesh, Nepal and Pakistan rushed to support the Chinese point of view when Vietnam aided the National Salvation Front of Heng Samarin of Kampuchea and, in a pre-emptive move, brought down the Pol Pot regime. But all these countries kept silent when China invaded Vietnam in assertion of its hegemonic role. India has, therefore, to view the concept of a South Asian free zone in the light of these considerations.

The next point for us to examine is the proposal for inspections. India's opposition to the discriminatory inspection procedure is based not only on the idea of sovereign equality of nations but also on the safeguarding of its own long-term peaceful nuclear programme. It is to be recalled that Dr Homi Bhabha set up the Tata Institute of Fundamental Research as

*Zalmay Khalilzad, "Pakistan: The Making of a Nuclear Power," *Asian Survey*, June 1976.

early as 1944. He felt that India, which missed out on the first industrial revolution, should not be left out of the second (nuclear) industrial revolution. He therefore devised a three-stage programme for India's peaceful nuclear development.

The first stage consisted of the setting up of natural uranium heavy water reactors. We are still at this stage. The second stage would be to set up fast breeder reactors using plutonium produced in the natural uranium heavy water reactors. This is the reason why we need reprocessing plants in this country. The fast breeder reactor will also convert thorium (which India has in abundance) into uranium-233. In the third stage, the reactors would be based on both plutonium and uranium-233 as fuel.

At present, India is setting up an experimental fast breeder reactor at Kalpakkam. Contrary to the propaganda in the West, this reactor was not sold to India by France. With some technical cooperation the reactor is being designed entirely by Indian engineers and scientists. It is also likely that in view of the setting up of the London Suppliers Group, India would have to develop its own indigenous fuel for this fast breeder reactor.

India and Brazil have the largest deposits of thorium in the world. Other countries are not as interested in thorium technology, so it would not be either productive or pertinent for India to accept mutual inspection with Pakistan in regard to its fast breeder technology or its thorium technology, any more than the United States would be prepared to accept such mutual inspection with Mexico or Cuba or Britain with Norway or France with Romania.

Vajpayee said in the Rajya Sabha on 4 May 1979 that Pakistan had suggested that "India and Pakistan accept international or bilateral inspection of their nuclear facilities on a reciprocal basis." He further explained that on the question of safeguards, including inspection, India has been firmly and consistently of the view that any acceptable safeguards (including inspection) would need to be based on objective, scientific and non-discriminatory criteria universally applicable to all states, nuclear weapon powers as well as non-nuclear weapon states.

Thus, India is prepared to accept inspection if it is made universally applicable. But inspection on a bilateral basis with a country which is far behind India in technology is neither practicable nor acceptable.

Pakistan is not only a non-signatory to the N.P.T., it has not even signed the Partial Test Ban Treaty as China and France have done. Therefore if Pakistan were to conduct a nuclear explosion above the ground, with all the consequent radio-active fall-out, it would not be violating any treaty obligations. It is strange irony that the United States, so keen to make India sign the N.P.T., has not yet seen fit to persuade Pakistan to sign the Partial Test Ban Treaty.

In any event, a joint declaration abjuring nuclear weapons has no greater validity than a unilateral declaration which India has already made. This is why India's reply to this proposal was that if Pakistan were sincere about its intentions, it should follow India's example and also make a unilateral declaration. Even if Pakistan were to sign a joint declaration with India or join in a South Asian nuclear free zone, there is no guarantee that a nuclear "Islamic" device assembled in Pakistan would not be tested in Saudi Arabia. In this connection it is a mystery why Saudi Arabia, which by itself is not in a position to manufacture nuclear weapons, has not signed the N.P.T. and the United States has not taken any steps to persuade that country to sign it. Saudi Arabia is not likely to sign the N.P.T. till Israel signs it. If Israel were to sign it there must be an internationally validated conclusion that Israel is not a nuclear weapon power, and has no nuclear weapon arsenal; but in order to do this the United States would have to make available all the records about their military reactors and all the details of about 4,000 kg of fissile material missing from various facilities in the U.S.A.

It would appear that President Carter and his advisers are trying to persuade India to help them collaterally in preventing Pakistan going nuclear by either signing a joint declaration with Pakistan or agreeing to a nuclear weapon free zone. It is likely that President Carter may now be prepared to throw open civilian nuclear reactors for inspection (as President Johnson also once offered) and may argue that once these

civilian nuclear reactors are offered for inspection, there will be no discrimination in safeguards procedures between civilian nuclear reactors in weapon countries and in non-weapon countries. This seemingly reasonable proposition ignores certain harsh realities. The diversion of fissile material in America did not take place from its civilian reactors but from its military reactors and military fissile material fabrication facilities. Therefore, bringing the American civilian reactors under safeguards would not insure against continued clandestine proliferation.

What is required is to bring all fissile production facilities (both civil and military) under uniform safeguards and thereafter to subject all fissile material to strict accounting procedures. The easiest method of enforcing this would be to cut off all fissile material production for military purposes. This is what India has always advocated.

President Carter's sincerity in regard to non-proliferation will have to be tested with reference to his acceptance of these proposals. Otherwise he will prove no different from his predecessors, who wanted non-proliferation to be imposed on the rest of the world while retaining full freedom for themselves to proliferate—and proliferate clandestinely to their selected friends.

There are political factors to be considered too. In dealing with a Pakistan likely to go nuclear in the near future, certain basic considerations in regard to the future of Pakistan would have to be taken into account. We have already referred to the inherent instability of Pakistani polity. The only institution which holds Pakistan together today is the Pakistan army, and it holds it together by force. The Pakistan army cannot be said to be a monolithic institution though it has been a disciplined force so far (in spite of the seven attempts at *coups d'etat* counted by Bhutto, of which three were successful). However, there have been many speculations that the middle and junior level officers of today do not see eye-to-eye with the senior Generals who were bent upon executing Bhutto. As political instability in Pakistan increases, and if insurgency breaks out in Baluchistan and the Frontier Province, there would be opportunities for the Pakistani armed forces to get increasingly

politicised again. One cannot also rule out the possibility of a Mengistu emerging from the background. The semi-porus border with a Marxist Afghanistan is a point to be taken into account in assessing the future evolution of the Pakistani armed forces. There can also be a rightist colonels' revolt. In any case, Pakistan has no forces and institutions other than its armed forces which would guide it and move it towards a stable polity. In such circumstances, whether any agreement or understanding on inspections or nuclear free zones reached with General Zia could be a stable or binding one is a matter which should worry the Indian policy-makers not a little.

Nuclear weapons in a country which is unstable and is prone to civil war present grave problems for international peace and security. Even in the United States there have been clashes between whites and black sailors on aircraft carriers carrying nuclear weapons. There have been reports of an attempted mutiny in a Soviet nuclear missile submarine. At the time of the first French nuclear test in Reggan, Sahara, there were reports of the rebel O.A.S. group attempting to seize nuclear devices. One can only speculate what would have happened if the pro-Lin Piao faction or forces loyal to the "Gang of Four" had seized nuclear weapons in China during the internal crises in 1971 and 1977.

We have information that in the United States elaborate steps are said to have been taken to prevent an irrational or unauthorised use or firing of nuclear weapons. The most important of these steps is the installation of an electronic lock (Permissive Action Link) which, it is believed, can be activated only on a coded and verified message from the President of the United States. It is quite obvious that such sophisticated devices are not likely to be installed on the Pakistani bombs. Consequently, there would be grave risks of unauthorised use once Pakistan goes nuclear. In a civil war situation there are possibilities of both sides attempting to seize the weapons and threatening to use them, either inside or outside the country.

Finally, it is necessary in this connection to mention a common theme—often put out by the American Administration and the Western media—that the Pakistani nuclear venture is a direct outcome of the Indian nuclear explosion of

1974. This is part of the arm-twist propaganda that has been inflicted on us for some time now to induce India to sign a full-scope safeguards agreement.

It is, of course, obvious that Pakistan's strategic plans and moves are primarily concerned with its confrontation with India. However, in this case, there was no way that by itself Pakistan could have got together a multiple-routed nuclear weapon programme based only on a security requirement vis-a-vis India. It simply does not have the financial resources. It is only with lavish grants of Arab funds that such a programme could have been undertaken, and since the prime concern of the Arab states is Israel, it is not the Indian nuclear blast of 1974 that should be cited as the inspiration for the bomb Pakistan is making but the nuclear capability of Israel.

Pakistan itself has openly asserted that its nuclear plans are directed against Israel rather than against India. The major thrust of a recent officially-inspired campaign was that Pakistan's nuclear efforts were primarily aimed at countervailing "Zionism and its bomb." *The Baluchistan Times* said editorially: "Pakistan could share its growing know-how with the Arab Islamic world." *Nawh-i-Waqt,* the influential Lahore daily, said that Pakistan's pursuit of nuclear capability is very definitely related to the overall Islamic efforts for meeting the challenge of Zionism and its nuclear potential. It argued that:

> The only plausible reason for the U.S.A.'s latest anti-Pakistan act (of cutting off of aid) could be that she is under pressure from the influential Jewish lobby and the traditional Western Christian prejudice against the Muslims....
>
> The U.S.A. does not want Pakistan to help her brother Muslim countries in breaking the nuclear monopoly of Israel, who is the forward post of Western imperialists in the Islamic world.... Pakistan is the only Islamic country to meet the nuclear need of the Islamic world.... The obstacles in the way of Pakistan's progress in the nuclear field will not only mean a deprivation for Pakistan but for the entire Islamic world....

Clearly, it was to Pakistan's advantage to obtain "appro-

val"—and the funds—for an "Islamic" bomb by projecting the Arab-Israeli conflict and the advantages to be gained by injecting an Arab nuclear argument into that confrontation. It is also clear that once Pakistan has acquired a minimum nuclear armoury, it will switch the focus of its strategic thrust from the Israeli to the Indian conflict, whatever the Arabs might say. And when that happens, an agreement on a nuclear free zone or a joint declaration would be of no help to Indian security. India therefore will have to rely on more credible options.

# 8

# OPTIONS BEFORE INDIA

ONCE PAKISTAN succeeds in exploding a nuclear device it will be but a short step to the acquisition of a minimum first-strike capability, based on the Mirage fighter-bomber as the delivery system. As soon as that happens, the sub-continent will enter into a new strategic era, escalating from a conventional to a nuclear-conventional milieu. The country most affected by the new strategic environment will be India, no matter what moral or other attitude its government takes up on the issue of nuclear threats.

This is not to say that a future Indo-Pak war would automatically start at, or even escalate to, a nuclear level because (as we saw in an earlier chapter) the use of nuclear weapons is, by and large, contingent on the result of an implied negotiatory process. But what it does mean is that India would have to be *prepared* against the probability of a future war escalating to nuclear level, and the degree of probability will depend upon the implied negotiatory process and the quality of the strategic response that India is able to make, *a priori,* in a nuclear-conventional confrontation.

The difference between response strategy in a conventional and a nuclear-conventional setting is that in the former case there is an advantage in keeping it secret, so that a defender's

strategic response comes as a surprise to the aggressor after he has launched an offensive; whereas in a nuclear-conventional setting the defender's response must *not* be kept secret. On the contrary, it should be ensured that such a response capability be *perceived* by the aggressor *before* he launches his aggression, and it must be accepted as credible, in order to inhibit him from escalation. In other words, in a nuclear setting an implied strategic dialogue should start *before* a confrontation situation erupts into hostilities, and the basic premise of such a dialogue will be the interaction of mutual threats, nuclear and conventional. If it so happens that one side has no credible deterrent to bargain with (nuclear or conventional), and is perceived as having none, then the war becomes a no-risk venture for the other side—and all the strategic options will pile up in his favour, especially if he is the would-be aggressor. This is the situation that India must avoid, whatever the strategic response we eventually adopt.

As things stand at present there is no strategic dialogue between India and Pakistan, in the sense of an ongoing negotiatory process. So long as both remain conventional powers, there is no necessity for a dialogue, especially as each side will wish to keep its trump cards—offensive or defensive —up its sleeve till the moment of play. Strategic planning in these circumstances centres on factors such as political motivation, military opportunism and the maintenance of surprise, all calculated in relation to Intelligence estimates of perceived military balance (or lack of it) between the two adversaries.

As soon as a nuclear threat is introduced into a conventional setting by one side, in this case Pakistan, the other side must discard its policy of secrecy and, *a priori,* project a response, if it has one. If it does not have a response, or if it does but fails to project it, the aggressor is accorded freedom of escalation —and the result could well be two destroyed cities, as happened in Japan in 1945.

In India the debate on this subject has so far been confined, by and large, to moral and economic issues, not strategic. As far as is known, the heads of the armed forces have not been exposed to such a debate; there certainly has been no explicit response strategy formulated. It would be interesting to find

out just what has been the sum total of India's nuclear policy so far.

During the period 1974–77, the declared policy of the government of Mrs Gandhi was that our nuclear programme would be confined to peaceful purposes only; no nuclear warheads would be made but we would keep the option open. At that time, despite the Chinese nuclear programme, there was no perceived nuclear threat to India. The reasons for declaring a no-weapons-as-yet policy were never disclosed, but presumably the policy was adopted to further the cause of non-proliferation (vertical as well as horizontal) and the Indian crusade for eventual nuclear disarmament. Nevertheless, the resultant strategic "message" was one of *uncertainty* regarding India's eventual policy. The uncertainty was caused both by our declaration to keep the option open as well as by the fact that our parallel weapons research and development programmes for a delivery system maintained the momentum for eventual nuclear capability. The declaration that we were not constructing weapons was perceived to be a fact (through the sophisticated satellite and other surveillance systems of the super-powers) but the "options-open" stance created some uncertainty regarding a future potential strategic response and, as explained later, uncertainty has its own strategic value in a nuclear setting.

After the present government came into power much of that aura of uncertainty was dissipated. At the United Nations General Assembly in the summer of 1978, Prime Minister Desai made a categorical statement that India would never stage a nuclear explosion in future, even for peaceful purposes. He has also stated, elsewhere, that the Pokharan test had been unnecessary because much of what the test revealed could have been learned through computer exercises. Furthermore, he alleged (but not convincingly) that the Pokharan explosion had created a greater degree of radiation and consequent contamination than the scientists had disclosed.

Later some redress was made by him in a statement in Parliament, a month after his General Assembly address, to the effect that he would not rule out a nuclear "blast" for engineering or other peaceful purposes. This was a piece of

prevarication uncharacteristic of him, but it may have helped to restore the policy situation to a degree of "uncertainty," especially as his Foreign Minister, Vajpayee, in reply to a question in Parliament in March 1979, reiterated what he had said before—that India's nuclear policy was "constantly under review."

Then, in May 1979, Desai's further clarification in the Parliamentary Consultative Committee removed all uncertainty. He made it clear that India would not change its peaceful nuclear policy *even if Pakistan were to explode an atomic bomb,* and he rejected all suggestions about taking a flexible attitude on the question. Desai said that he was convinced "not only on moral but also on practical grounds that it would be suicidal [to go nuclear]."

The decision to go nuclear or to remain "peaceful" must of course be a political decision—just as, in nuclear weapon countries, the first use of the bomb even in a war situation must remain a political decision. However, in arriving at such decisions, one of the main factors to be taken into consideration is the strategic one. In the case of India's nuclear policy, there has never been a debate in Parliament on the subject. It is not even certain that the present policy has been arrived at after a thorough discussion within the Cabinet, or that the Defence Ministry and the Chiefs of Staff have given their advice on this issue.

From the purely strategic point of view the obvious course would be for India to counter the Pakistani nuclear threat with a nuclear deterrent of our own. Once Pakistan has demonstrated its nuclear weapons capability the moral constraints against India's going nuclear would largely disappear and though pressures from the great powers as well as the international community as a whole would continue to be exerted, in the absence of any specific security guarantee there would be every justification to convert our peaceful nuclear programme to warhead production.

The possession of a minimum deterrent by India would more than match the Pakistani nuclear threat because of the geographical advantage that lies with India. In Pakistan's case the strategic targets—Islamabad and Karachi— are within

easy bomber range, whereas for Pakistani bombers targets such as Delhi and Bombay would be difficult to reach so long as the present limitations of delivery systems continue. Secondly, though both sides would possess only the crudest devices to begin with and those also few in number, until such time as sophisticated surveillance and other Intelligence methods are developed, both sides would virtually possess "second-strike" capability, and this also would be more true in the case of India than of Pakistan, because of the latter's geographical limitation.

Another advantage of countering the Pakistani threat with an Indian deterrent would be that the tactical use of the nuclear bomb would be virtually ruled out so long as both sides possessed only a limited number of bombs; and if that were so, India's conventional superiority—even if only marginal —would still exert its own influence on the battlefield. Thus, both in nuclear and in conventional confrontation India would retain the strategic advantage.

The decision whether to go nuclear or not will be a political decision, in the making of which a number of factors other than the strategic are of course to be considered—moral, economic and others—not least among which will be India's role in promoting the cause of universal nuclear disarmament. As pointed out in Chapter 4, India has been in the forefront of the nations of the world in advocating ways and means of nuclear disarmament. Despite the propaganda aimed against India in Western media in this respect, India's stand against the N.P.T. supported this very cause, because the terms of that Treaty in fact provided the mechanics for regularising the permanent possession of nuclear bombs by the five permanent members of the Security Council who also have the freedom to go on adding to their stockpiles as well as tacitly allowing a few selected nations access to nuclear material.

It was to acquire the moral right to press for nuclear disarmament that presumably India chose to opt for the odd-man-out status of a nuclear *no-weapon* nation in a world sharply divided between nuclear-weapon and non-nuclear nations. It was hoped that from this position of self-imposed restraint India would be able to give the world a direction

towards eventual nuclear disarmament, just as in 1947 by choosing to remain non-aligned in a world sharply aligned as communist or anti-communist blocs, India eventually paved the way for nearly 100 non-aligned nations to exert pressure to tone down the harshness of ideological confrontation.

In these circumstances our leaders have to take into consideration the permanent harm that would be done to our quest for universal nuclear disarmament if we went nuclear as a reaction to Pakistan's acquiring bomb capability. India firmly believes that one day the world will *have* to start dismantling its nuclear warheads if this planet is to survive. Prime Minister Desai has a point when he says that it would be "suicidal" for India to make the bomb. After all if men are mad enough to go on making more and more and bigger and bigger bombs, they might one day become mad enough to believe in the necessity of using them.

That, however, is only one half of the premise. *It does not follow that non-possession of nuclear bombs would ensure that they would not be used against us by our enemies.*

We have to bear in mind that Pakistan has no idealistic inhibition to inhibit it from resorting to nuclear war. If we are to succeed in dissuading Pakistan from using its bomb against us, we must first of all project a strategic posture that will make its leaders pause and think. So far our nuclear policy does not fulfil this role. Merely to say that we will not make a bomb no matter what you do is not the beginning of a strategic dialogue. It is only a statement of negative intent.

In circumstances that are likely to prevail for a good many years—that is, the possession by Pakistan of only a small number of atomic bombs and the lack of a sophisticated delivery system—it is not necessary for India to possess a nuclear armoury to start a strategic dialogue. A parallel situation existed in Europe in the late nineteen-forties. At that time the Western powers perceived the Russians as possessing overwhelming conventional superiority. The fact that that perception later was proved to have been erroneous did not prevent them at that time from crediting the Russians with the potential strength of initiating military measures to consolidate their hold on Central Europe, including Austria and

Yugoslavia and perhaps areas of West Germany. The Americans' proposed response to such a take-over bid was to drop a few atom bombs on Russia. It was Professor P.M.S. Blackett who pointed out that such a reprisal could prove counter-productive. He argued that the Americans did not have enough bombs to *destroy* Russia's armed forces: so if Russian targets were bombed this would only provoke the Soviet Union to make an armoured sweep westwards and occupy the whole of Western Europe up to the Channel ports.

What this amounted to was the projection of a likely Russian strategy of posing a *conventional* deterrent threat against a limited *nuclear* attack. If this concept was considered valid, then it could also be applied in the present setting. If India wishes not to resort to its nuclear option, a possible alternative strategy could be to pose a conventional deterrent threat against Pakistan—that is, should Pakistani leaders threaten or actually use nuclear bombs against India, our previous policy of offensive action with limited objectives only would no longer apply and India would sweep westwards to occupy Pakistani territory up to, say, the border of the Frontier Province. However, in order to make such a conventional threat credible, we would have to build up our armed strength to a degree in which we would have not just a marginal superiority but an overwhelming superiority over Pakistan's armed forces, overwhelming to the extent that Pakistan would *perceive* the threat to its territorial integrity. This is not an impossible task, but the economic consequences to the national development programme would have to be taken into account before we undertake it. It must also be remembered that even if that conventional deterrence is perceived as being credible, in projecting such a strategy India would still be holding the cities of the Punjab, Rajasthan, Haryana and Gujarat as hostages to its efficacy. Thickening up our missile cover and our interceptor cover would minimise the risk, but it could not entirely eliminate it.

Furthermore, such a strategy would have a limited time frame. It would be effective only so long as Pakistani nuclear armoury is small. Once Pakistan builds up a sufficiently large stockpile to be able to use atomic bombs freely as tactical

nuclear weapons against Indian military targets, the conventional threat posed by us would no longer be credible.

There is yet another alternative. So far we have made our non-possession of bombs a known certainty. Without opening up our nuclear establishments to inspection—and we have resisted that only as a stand against lack of mutuality of obligation—we have done everything, including shouting from the housetops, to tell the world that we have not got a bomb and that we do not intend to make one.

We could change that policy by turning this "certainty" of our own creation into an "uncertainty." We have a sufficiently advanced nuclear technological base and space research facilities to project to Pakistan our ability to switch quickly from a non-nuclear to nuclear posture. This would not be the same as the Israeli "last wire" syndrome, in which the act of making the bomb has already been undertaken, just the last wire needing connection! That is a policy of deception, it would not accord with our need to continue to exert moral pressure for universal disarmament. In our case, we need not even *begin* on a bomb manufacture programme, but we could create the uncertainty by projecting our potential for quickness of response. This would be done by continuing with demonstrations of our technological capability such as advanced rocketry tests, space technology and re-entry know-how and, above all, continuing with our peaceful explosions series (including thermo-nuclear explosions) in support of scientific and industrial projects. This would constitute a credible and forceful strategic projection to attempts at nuclear blackmail by Pakistan, and this projection will not necessarily be time-barred, provided our rate and momentum of technological advance leaves Pakistan so far behind that this aspect of "uncertainty" of response-at-one-remove continues to remain credibly overawing.

Before we close our list of strategic options, it is pertinent to state that the Israeli type of strategy of uncertainty —based on the "last wire" deception—does in fact constitute a fourth (fall-back) option. The implications here are different from those of the "open" type of strategy of uncertainty mentioned above, and the credibility factor is stronger.

As between the "open" strategy and the Israeli-type one there is a paradox. The "open" strategy of uncertainty, which would not necessitate preparing a stockpile of nuclear weapons, does however call for a continuous series of test explosions; while in the alternative (Israeli-type) strategy of uncertainty no test explosions are envisaged though it would be based on preparing a secret stockpile of weapons. Because an adversary would expect of a country that has carried out a nuclear test a strategy of uncertainty of this kind, the Israeli-type projection of uncertainty carries greater credibility.

Thus, India has four strategic options: *(i)* going nuclear explicitly, following a Pakistani test, and to make preparations for it ahead of the event; *(ii)* expanding its conventional forces, both offensive and defensive, to deter Pakistan's nuclear threat with a conventional threat of deep thrusts and large-scale occupation of territory; *(iii)* using a strategy of uncertainty based on a declared policy of no-weapons but to continue further nuclear tests (including thermonuclear ones) and to accelerate missile development; and *(iv)* using a strategy of uncertainty based on a declared policy of no-weapons but at the same time preparing a sufficient number of nuclear weapons with the last wires unconnected.

All the four strategies have their costs in political and economic terms. The first strategy would mean India giving up its "ideological" struggle for nuclear disarmament. Perhaps, by adopting this strategy, India would be able to ensure its own security and even gain in political stature in a world dominated by the nuclear cult, but it would mean a major set-back for the humanitarian aim of striving for a denuclearised world. The second strategy would be valid only for a limited period of time, that is, till Pakistan builds up a reasonable stockpile. It would also be a very costly alternative. The third strategy would call for a reversal of the Prime Minister's personal commitment (which is not a government policy) not to have any more test explosions. The fourth strategy is perhaps the cheapest and the best, and an adversary would expect this of India.

The most dangerous scenario for India will be a policy of drift, that is, to adopt an apparently moralistic stand without

debate or deep consideration. This would leave us to be caught in a state of physical and emotional unpreparedness, which could only lead to a trauma far worse than that we experienced in 1962. Unfortunately, it must be confessed that there is a high probability of this happening. The oft-repeated statement of various authorities that our nuclear policy is an old established one, from the time of Jawaharlal Nehru, and hence does not need any revision is only an obfuscation of the fact that the Government of India has not till now formulated any rational policy.

The Chinese nuclear test took place after Nehru's death; so that during his life-time there was no strategic policy formulated which took into account nuclear threats. During the Lal Bahadur Shastri period there was a vigorous search for security guarantees from super-powers. Then, in the initial years of Indira Gandhi's government, this search for security guarantees was revived but proved totally fruitless. After the N.P.T. came into force and we had undergone our traumatic experience with the Bangladesh crisis of 1971 (when it became necessary to conclude a treaty of peace and friendship with the Soviet Union in our security interest) a decision appears to have been taken by the then Prime Minister (without any consultation with any of her Cabinet colleagues and without placing anything on record) to adopt the strategy of nuclear uncertainty, namely, to develop a weapons know-how while announcing a policy of no weapons.

After the Janata government came into power even this policy was given up. Yet our official spokesmen and Cabinet ministers reassure Parliament and the country—often in contradictory terms. While someone tells us that our well-considered nuclear security policy, pursued since the days of Nehru, needed no revision, someone else asserts that it is "constantly under review." As far as is known neither our Cabinet ministers nor senior civil and military bureaucrats have ever considered this problem as a strategic issue. Now that Pakistan has embarked on a nuclear weapon effort it is no longer possible to get by with evasive answers that stifle debate. It is time to start applying ourselves to the evolution of an optimum nuclear-conventional policy.

Apart from military options serious consideration has to be given to diplomatic initiatives. The Prime Minister's initiative in the U.N. General Assembly Special Session on Disarmament did not evoke a sympathetic response from the nuclear weapon powers, though his proposals were pitched very modestly. He proposed qualitative and quantitative limitations on nuclear armaments, a comprehensive test ban treaty, non-discriminatory safeguards and the outlawing of research and development in military nuclear technology. SALT II is shortly to be signed between the United States and the Soviet Union, and that takes care of Desai's first point. A comprehensive test ban treaty and non-discriminatory safeguards are nowhere in sight, and no one ever talks about outlawing nuclear military R & D. One welcome sign, however, was that the Indian resolution terming the use or the threat of use of nuclear weapons as crimes against humanity, though not pressed to the vote at the Special Session, received overwhelming support in the General Assembly session later in the year.

The main difficulty in taking any diplomatic initiative in regard to nuclear disarmament is the sense of complacency and security among the peoples of the industrialised nations in regard to the likelihood of nuclear war. For them King Atom has brought peace and stability, and there is no fear of nuclear war breaking out in Europe under the umbrella of the United States-Soviet Union nuclear stability. In fact, military men and diplomats of N.A.T.O. have to devise very contrived scenarios of Soviet attacks on Western Europe in order to justify increased defence appropriations for nuclear cover for the N.A.T.O. countries. Hence proposals to reverse the nuclear arms race and to reduce nuclear weapon stockpiles are not issues which agitate the minds of the people of these countries.

Of late there has been a ground swell of opinion about the dangers of radiation hazard. Terrorism and the terroristic use of nuclear devices are issues likely to attract the attention of the peoples of these countries. But they have never been exposed to the hard facts about how such proliferation occurs, or about the clandestine procurements from military nuclear facilities of weapon powers. Nor has there been much discus-

sion on the likely terroristic use of nuclear devices either in the Arab-Israeli context or by professional terroristic groups like the Red Army Faction of Germany, the Red Army of Japan or the Carlos group.

In these circumstances our diplomatic initiative should focus on highlighting the Pakistani nuclear effort in the appropriate perspective. India's diplomatic effort to contain this menace should be to take the initiative in calling a conference of the five nuclear weapon powers with Israel, the leading Arab states (Saudi Arabia, Libya, Iraq, Algeria, Egypt, Syria and Jordan) and Pakistan to discuss ways and means of reassuring the Arab states on Israeli nuclear capability and of tightening up safeguards on military nuclear facilities of weapon powers. Only in this course lies a faint chance that the "Islamic" bomb could be pre-empted.

The Indian resolution that was passed with an overwhelming majority in the General Assembly, declaring the use and threat of use of nuclear weapons as crimes against humanity, should be the starting point of a concerted campaign. This resolution should be brought up before the General Assembly year after year and passed. In every international forum opportunities should be availed of to reiterate this. India's aim would be to strip nuclear weapons of their legitimacy and prestige by organising constant pressure from world opinion, just as other evils of history have been stripped of their legitimacy in the past. For centuries slavery had been regarded as the legitimate right of the big powers and it is only in the past 115 years that it has been outlawed. When India took the *apartheid* issue to the U.N. General Assembly in 1946 it did not succeed in its mission, but after years of persuasion and pressure it has now been declared a crime against humanity. An even closer parallel is the American refusal to sign the 1925 Geneva Protocol banning the use of chemicals and toxic agents. In the Vietnam war these were in fact used by the United States forces, but in 1974 world opinion finally succeeded and the Americans signed the Protocol. It is possible therefore to hope to create over the years a climate of opinion which would make the manufacture and possession of nuclear weapons crimes against humanity.

In 1956 the Indian Government commissioned a study on the effects of nuclear explosions and their fall-out. This was the beginning of a world-wide campaign on the effects of radio-active fall-out from nuclear tests which finally compelled the United States, Russia and Britain to conclude the Partial Test Ban Treaty in 1963. There is ample opportunity today to mount a world-wide campaign, either under the U.N. auspices or by the Government of India itself, on the dangers of clandestine proliferation arising out of unsafeguarded military nuclear facilities, the terroristic use of nuclear devices and the collapse of the N.P.T. It is time for India and the U.N. to address the people of industrialised countries directly, if necessary going over the heads of their governments, to enlist their help in the campaign for meaningful nuclear disarmament measures.

India would be in a position to pursue the above strategic and diplomatic responses only if it remains strong enough to project them credibly and keeps its options open. If India were to close its options—and some of our official pronouncements tend towards such a course—the international community, and specially the Western powers and Pakistan, are not likely to take notice of its strategic projection; and there would never be a credible dialogue to inhibit Pakistan.