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NUCLEAR NON-PROLIFERATION TREATY (NPT) : AN INDIA-PAKISTAN COMPARATIVE PERSPECTIVE

INTRODUCTION

Neither India nor Pakistan has signed the NPT. There is a danger that the nuclear race between these two South Asian countries may go out of hand. It would threaten the regional peace and stability and would also have grave consequences for the international peace and security. While at the regional level, the perspectives of India and Pakistan on NPT are divergent, they at least partially share their stand on NPT at the global level. The focus of the present paper is on the dynamics of regional and global perspectives on NPT in the context of India and Pakistan.

First, a comparative review of India and Pakistan's nuclear weapons programme, nuclear industry, skilled manpower and the help each received in its pursuit of nuclear technology from the industrialised countries is presented. In the next section, the successes and failures of the NPT are analysed in the light of the ambivalence with which the nuclear weapons states (NWS) have treated the proliferation issue and the treaty. In the following two sections, the perception of the treaty from the viewpoint of geopolitics, India and Pakistan's national security needs and their needs for technology and its transfer from the industrialised countries to the developing countries

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are discussed. Finally, suggestions are made as regards what should be done to contain the nuclear proliferation. Specific references are made to the UN, IAEA and SAARC for the roles they could play with help from the West to bring about a reconciliation in the Subcontinent by building trust and confidence.

NUCLEAR CAPABILITY OF INDIA AND PAKISTAN IN COMPARATIVE PERSPECTIVE

India is a large country whose area and population are larger than Europe's, and whose Gross National Product (GNP) is thirteenth in the world. Of course, in terms of per capita GNP its position is 168th down the scale. But India has developed a strong indigenous nuclear infrastructure and has an efficient nuclear bureaucracy. In fact, among the developing nations India has the largest nuclear programme with no clear delineation between civil and military programmes¹. India produces a large amount of unsafeguarded plutonium and it may also have the capability to produce thermonuclear weapons². Although India has not tested a nuclear device since its first test in May 1974, it has continued with the non-nuclear high explosive tests, presumably to gain confidence in the performance of its nuclear weapons. As compared with 1974, India today maintains a vastly expanded nuclear laboratory complex and industrial support system, which could be compatible only with a determined nuclear weapons programme³.

India greatly benefited from the assistance it had received from the US and the other Western countries in the field of nuclear technology

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1. D. Albright, F. Berkhout and W. Walker : *World Inventory of Plutonium & Highly Enriched Uranium 1992*, Oxford University Press, 1993, Chap.9, p. 153.
 2. D. Albright and Tom Zamora : "India - Pakistan's Nuclear Weapons - All Pieces in Place"; *The Bulletin of the Atomic Scientist*, June 1989, p. 20.
 3. D. Albright and M. Hibbs : "India's Silent Bomb"; *The Bulletin of the Atomic Scientist*, Sept. 1992, p. 20.

before the export restrictions were imposed by the London Suppliers' Club in the 1970s⁴. For instance, India used an AECL (Atomic Energy Canada Limited)-supplied CANDU (Canadian Deuterium Uranium)-type Cirus reactor at BARC (Bhabha Atomic Research Centre) and the US supplied heavy water to produce plutonium for its 1974 nuclear explosion⁵.

Although India started its nuclear weapons research programme in the 1960s ostensibly in response to China's nuclear test⁶, its quest for nuclear technology had begun in earnest with the establishment of the Atomic Energy Commission (AEC) in August 1948 under the Chairmanship of H. J. Bhabha⁷. Bhabha made Indian science more nuclear, military and space research oriented. In fact, AEC, ISRO (Indian Space Research Organisation) and the military now consume 5% of India's GNP⁸. Today India can produce all the materials connected with the manufacture of nuclear weapons : ^{233}U , ^{235}U , ^{238}U , ^{239}Pu , Tritium, Deuterium, ^6Li , Be, maragin steel, Cobalt-Samarium magnets and Zirconium Oxides⁹. India has in its possession sophisticated aircraft that could deliver nuclear weapons to targets both in China and Pakistan¹⁰. More importantly, though, India has developed missiles such as Prithivi (range 250 km) and Agni (range 2,500 km),

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4. D. Albright and Tom Zamora, *op. cit.*
 5. G. Milhollin : "India's Missiles - with a little help from our friends"; *The Bulletin of the Atomic Scientist*, Nov.1989, p. 31.
 6. R. V. R. Chandrasekhara : "India - Pakistan racing to be last", *The Bulletin of the Atomic Scientist*, Nov. 1987, p. 32.
 7. D. Sharma : "India's Lopsided Science", *The Bulletin of the Atomic Scientist*, May 1991, p. 32.
 8. P. Halli-well and D. Lawry : *Nuclear Weapons Decisions Making in the Emerging Nuclear states*, European Proliferation Information Centre (EPIC) Report, Oxford, 1992.
 9. See, D. Albright and Tom Zamora, *op. cit.*; D. Albright and M. Hibbs, *op. cit.*; S. Weissman and H. Kosney : *The Islamic Bomb*; Time Books, 1981, p. 130, *Nuclear India*, Vol. 26, Nos. 1 & 2, 1988; and *Nuclear India*, Vol. 25, Nos. 10 & 11, 1987.
 10. D. Albright and Tom Zamora, *ibid.*

that can be fitted with nuclear war-heads¹¹ and if deployed in Assam, Agni could reach the Chinese cities of Beijing, Nanking and Canton¹². It also has a vigorously active nuclear submarine development programme and envisaged to launch its own nuclear submarine by the mid-1990s. It might acquire submarine-launched missile systems by the year 2000¹³.

Unlike India, Pakistan does not have a developed nuclear infrastructure and also lacks a strong industrial base: only 20% of its GNP comes from the manufacturing sector. Agriculture contributes 80% of its exports. And in spite of the fact that both India and Pakistan have inherited the same bureaucratic tradition from the British Raj, Pakistan does not have a strong nuclear bureaucracy to formulate and execute its nuclear policy¹⁴.

Pakistan's nuclear weapons programme is based on uranium-enrichment while India's programme is mainly based on plutonium¹⁵, but India has uranium-enrichment facilities at BARC in Trombay and Ratanhali (near Mysore)¹⁶. Pakistan can now manufacture centrifuges although there is some doubt about its ability to produce domestically all the raw materials required for the purpose¹⁷. The weapons programme, under the PAEC (Pakistan Atomic Energy Commission), may have started in earnest after the Indian test in 1974¹⁸. Pakistan

11. G. Milhollin, *op. cit.*

12. P. Halli-well and D. Lawry, *op. cit.*

13. See, Manoj Joshi : "Under Thrust - India's Own Nuclear Submarine Programme; *Front Line*, New Delhi, December 1991, p. 9 ; and B. Sanders and J. Simon : "Nuclear Submarine and Non-Proliferation - Cause for Concern"; PPNN (*Program for Promoting Nuclear Non-Proliferation*) Occasional paper, No. 2, July 1988.

14. P. Halli-well and D. Lawry, *op. cit.*

15. *Ibid.*

16. D. Albright : "A Proliferation Primer"; *The Bulletin of the Atomic Scientist*, June 1993, p. 14.

17. D. Albright, F. Berkhout and W. Walker, *op. cit.*

18. D. Albright and M. Hibbs : "Pakistan's Bomb out of the Closet", *The Bulletin of the Atomic Scientist*, Jul./Aug. 1992, p. 38.

detonated two conventional high explosive devices in 1986¹⁹, perhaps as a part of its determined efforts to build nuclear weapons without a full scale test. Pakistan's weapons programme gained momentum with the US policy reversal of 1981, two years after the Soviet invasion of Afghanistan²⁰. Pakistan became the bulwark of the US policy opposing Soviet occupation and the principal conduit of its arms supply to the Mujahedeen. However, once the Afghan problem was resolved resulting in the withdrawal of Soviet troops, President Bush refused to issue a nuclear weapon non-possession certificate to Pakistan. In consequence, all US economic and military aid to Pakistan came to a stop in 1990²¹, but at that advanced stage the aid cut-off possibly had little adverse effect on the weapons programme. Pakistan now openly admits its capability to assemble a nuclear device²². Though nothing is known about the reliability, yields and other related systems which would make it a real weapon, there has been strong suggestions in the West that Pakistan might have received a proven design from China of the same type it tested at its Lopnor site in 1966²³, perhaps in exchange for Pakistan's centrifuge enrichment technology²⁴. Like India, Pakistan has aircraft capable of carrying nuclear weapons²⁵ and has developed two surface-to-surface missiles (Haft-I, 80 km and Haft-II, 300 km in range) which could be fitted with nuclear war-heads²⁶. Pakistan has no active nuclear submarine programme, at least not yet.

19. D. Albright : "Pakistan's Bomb Making Capacity"; *The Bulletin of Atomic the Scientist*, June 1989, p. 30.
20. L. S. Spector : "Pakistani Smuggling of Riles Congress"; *The Bulletin of the Atomic Scientist*, Oct. 1987, p. 3
21. D. Albright and M. Hibbs, *op. cit.*
22. *Ibid.*
23. R. W. Jones : "China & Nuclear Non-Proliferation Regime : Renegade or Communicant?" ; *PPNN Occasional paper*, No. 3, July 1989, p. 18.
24. *Programme for Promoting Nuclear Non-Proliferation*, No. 2, July 1987, p. 7.
25. D. Albright and Tom Zamora, *op. cit.*
26. John Hassard : *The Technologies of Proliferation : Topic-4.*, School on the Technologies of Verification, Imperial College, 1988.

Both India and Pakistan are parties to the LTBT (Limited Test Ban Treaty) of 1963²⁷. India and Pakistan have also been members of the International Atomic Energy Agency (IAEA) since it was founded in July 1957²⁸, but they are not parties to the NPT of 1970. At the UN, India and Pakistan routinely support the resolutions calling for Comprehensive Test Ban Treaty (CTBT), non-use of nuclear weapons, and their elimination²⁹. That they can afford to do so is a commentary on the ambivalence of the established nuclear weapons states with regard to the proliferation issue.

THE SUCCESSES AND FAILURE OF THE NUCLEAR NON-PROLIFERATION TREATY (NPT) ?

Three of the permanent members of the UN Security Council were the original signatories of the NPT in 1968; China and France had refused to sign because it did not then sufficiently accommodate their interests³⁰. However, later when they felt they had nothing to lose by adhering to the treaty they agreed to accede (China on 9 March 1992 and France on 3 August 1992). Non-nuclear weapons states of Europe, Japan and Canada signed the treaty because they had the protection of the United States by way of stationing its nuclear weapons in their territories. Besides, most of them have already attained nuclear capability and even retained personnel trained in the use of nuclear weapons in their armed forces³¹. Taiwan (1977) and

27. R. W. Jones, *op. cit.*

28. P. Halli-Well and D. Lawry, *op. cit.*; *Nuclear India*, Vol. 25, No. 9, 1987.

29. Vitallii Goldanskii and Valery Davydov : "Comprehensive Test Ban and Prevention of Horizontal Nuclear Proliferation"; *Ways Out of Race*: Eds. John Hassard, Tom Kibble & Patricia Lewis, World Scientific, p. 160.

30. Norman Moss : *Politics of Uranium* ; Andre Deutsch Ltd., 1981, p. 65,

31. K. Subrahmanyam : "Preventing Proliferation of Nuclear Weapons: Forestalling 1995", in *Ways Out Of Race*: edited by John Hassard, Tom Kibble & Patricia Lewis, World Scientific, p. 177; Carl Keyesen, Robert McNamara & George Rathjens : "Nuclear Weapons after Cold War"; *A Nuclear Weapon Free World*, edited by Joseph Rotblat, Jack Steinberger & Bhalchandra Udgaonkar, West View Press, 1993, p. 33.

South Korea (1975) acceded to the treaty after the US had agreed to provide a nuclear umbrella for their protection³². South Africa signed the NPT on 10 July 1991, when majority black rule had become inevitable³³.

By 1990, 140 states had signed the treaty³⁴ but not many of them have the real ability or even the potential to produce nuclear weapons - most of them have no industrial or economic base or for that matter manpower for the purpose. It would, therefore, be less misleading if one compared the non-signatories with those signatories who either have the nuclear weapon capability or possess them³⁵. Important non-signatories are India, Israel, Pakistan, Brazil and Argentina. They contain almost a third of the world's population and they are also regional powers of considerable military and economic might, with significant political influence and prestige. No non-proliferation measures have any chance of success without their participation, and the London Suppliers Club will not be very effective without their inclusion³⁶. The treaty has certainly slowed down horizontal proliferation by making the building of nuclear weapons more expensive and time-consuming but it seems that it has rather, intensified vertical proliferation in the sense that the Nuclear Weapon (NW) states have more and advanced nuclear warheads today than they had in 1970 when the treaty came into operation. Today all the oceans of the world, except the Antarctic (Antarctic treaty 1959)³⁷, are routinely patrolled by nuclear submarines and other naval vessels

32. John Hassard, *op. cit.*

33. *The Bulletin of the Atomic Scientist*, May 1993, p. 3.

34. D. A. Fischer : "Eastern Europe after Pax Sovietica"; *The Bulletin of the Atomic Scientist*, Jul./Aug. 1990, p. 23.

35. K. Subrahmanyam : *Ways Out Of Race, op. cit.*

36. D. Albright and M. Hibbs : "Supplier - Spotting"; *The Bulletin of the Atomic Scientist*, Jan./Feb. 1993, p. 8.

37. Jozef Goldblat : "Making Nuclear Weapons Illegal"; *A Nuclear Weapon Free World*: Eds. Joseph Rotblat, Jack Steinberger & Bhalchandra Udgaonkar, West View, 1993, Chap.10, p. 153.

carrying nuclear weapons for the five NW states³⁸. The Western powers did not sign the Rarotonga (1985) nuclear-free zone treaty and the Tlatelolco (1967) nuclear-free zone has lost its significance because of the exclusion of Argentina, Brazil and Cuba³⁹. The deployment of nuclear submarines and ships carrying nuclear weapons by Britain during the Falklands war⁴⁰ did not help the cause of NPT. Furthermore, the US actively discourages the South Asia nuclear-free zone⁴¹. UK's declaration of reduction of its nuclear warheads by 25% on 10 December 1993⁴² was an encouraging development even though it was a reduction in the planned future deployment of its modernised Trident-II D-5 air and sea launched cruise missiles which have longer ranges and greater accuracy than the present Polaris missiles. That is, in spite of the declaration the number of nuclear warheads will remain at the present level.

INDIA AND THE NPT

India has not acceded to the treaty and it maintains that it is discriminatory, inequitable and one-sided⁴³. The origin of the treaty lies in the perception of the West that the newly independent countries of the Third World might acquire nuclear weapons and that under maverick, mercurial and even irresponsible leadership would then bring down the disaster of nuclear war upon the world⁴⁴, ignoring the fact that Hitler and Mussolini were Europeans, and also that Germany and Italy were colonial powers as were Britain and France. In the two devastating world wars, the countries of the Third World had played

38. Vitallii Goldanskii and Valery Davydov, *op. cit.*; See also, K. Subrahmanyam : *Ways Out Of Race, op. cit.*

39. K. Subrahmanyam, *Ibid.*

40. Vitallii Goldanskii and Valery Davydov, *op. cit.*

41. K. Subrahmanyam : *Ways Out Of Race, op. cit.*

42. *BBC News*, London, 10 December 1993.

43. K. Subrahmanyam : *Ways Out Of Race, op. cit.*

44. Ashok Kapur : "Dump the Treaty"; *The Bulletin of the Atomic Scientist*, Jul./Aug. 1990, p. 22.

no role in their initiation: they had been rather dragged into the wars by their colonial rulers.

France, a victim of Nazi occupation during World War-II, later fought savage colonial wars in Algeria and Indo-China; and tested its nuclear weapons at two sites in Algeria (Reggane and Hogger Massif from 1960-1966). The United States dropped nuclear bombs on Hiroshima and Nagasaki without giving prior warnings to the civil inhabitants of the two cities when reportedly Japan was actually suing for peace⁴⁵; and the US's nuclear tests at Marshall Islands have long-term effects on the lives of the inhabitants⁴⁶. Even Iraq with its fanatical leadership, despite expert Western predictions, did not use its chemical or biological weapons against Israel or Saudi Arabia, although the US used 300 metric tons of toxic uranium depleted bullets against Iraq⁴⁷. It seems that the United States is trying to inject moral questions into the nuclear proliferation issue which is essentially a political one. Many in India and elsewhere in the Third World see the NPT as an instrument through which the West is trying to maximise and perpetuate its economic, military and strategic advantages. Though the treaty makes the acquisition of nuclear weapons by non-nuclear weapon states illegal, it legitimises and perpetuates the possession and proliferation of nuclear weapons by the five permanent members of the UN⁴⁸, and it also seems to legitimise the use of nuclear weapons by them.

It is not obvious that the accession to the NPT would enhance the security of India. China, with which India has a long-standing border dispute and had fought a war in 1962, has under the treaty become one

45. Kosta Tsipis : *Understanding Nuclear Weapons*, Wildwood House, London, 1985, Chap.-1.

46. Jane Diblin : *Day of Two Suns*, Virago press Ltd., 1988.

47. W. M. Arkin : "Desert Glows with Propaganda"; *The Bulletin of the Atomic Scientist*, May 1993, p. 11.

48. K. Subrahmanyam : "Regional Conflicts and Nuclear Fears"; *The Bulletin of the Atomic Scientist*, May 1984, p. 16.

of the legitimised nuclear powers with a large stock-pile of nuclear weapons, including land-based and submarine-based ballistic missiles and has not yet joined in the nuclear testing moratorium declared by the other four NW states. Pakistan, with which India fought three wars since its independence from Britain in 1947 and which it holds partly accountable for the troubles in Kashmir and the Punjab, is already a *de facto* nuclear power. Furthermore, Western powers refuse to commit themselves to a promise, not to use or threaten to use nuclear weapons against non-nuclear states and to withdraw nuclear weapons to their national boundaries from the oceans around India.

Even after the disintegration of the Soviet Union and the disappearance of the Warsaw Pact, Britain, France and NATO have not made any policy reversal about their nuclear deterrence, neither have they specified who their enemies are. Even the British Labour Party abandoned its unilateral nuclear disarmament policy in 1989⁴⁹, this being perceived as a response to the fact that unilateralism in nuclear disarmament is not popular in Britain. There is no reason to believe that it would be any different in India, not simply because of its military importance, but because it serves as a catalyst in harnessing national pride and confidence. In the face of BJP's (Bharatia Janata Party's) electoral gains in the last general election and the ensuing Hindu revivalism sweeping across India, it might even become a potent political issue. There seems to be a strong presumption prevailing in the West that the developing countries should accept every Western prescription, even in complete defiance of domestic public opinion and irrespective of its utility as regards the interests of the recipients.

The attainment of a nuclear weapons capability is undoubtedly a testimony to India's great technological achievement; and India cannot be unaware that nuclear status would enhance its international prestige,

49. Carl Sagan & Richard Turco : *A Path Where No Man Thought (Nuclear Winter and the End of Arms Race)*, Random Century Ltd., 1991, p. 134.

would increase its power to resist coercion or blackmail by a nuclear power and would, moreover, immensely increase its own coercive and intimidating power to get its way with other nations. Nuclear powers have been pursuing the policy of coercion and intimidation with some success⁵⁰ and there are now suggestions that the PLO and the other Arab countries have agreed to negotiate with Israel because of its nuclear weapons⁵¹. These developments would not obviously inspire much confidence in the NPT.

India has large thorium, uranium and coal deposits⁵² but not much oil. For industrialisation, rural electrification, mass education, transportation, fertilisers for increased food production, it needs power. Any one source is not enough for a number of reasons--India is a vast country and its needs are enormous. In Britain coal mines are being closed down because coal is no longer competitive as a power source. That may not be the case in India yet, nonetheless, mining and transportation of coal remains a formidable problem. Besides, nuclear power produces much less green-house effect than the burning of coal and natural gas. For oil India has to depend on imports, so it has to diversify its power production and try to be self-sufficient, for which nuclear technology seems to offer a way out.

And why not? France, Germany, Russia, and Japan all have extensive nuclear power programmes; Belgium and Switzerland's 25% of power supply come from nuclear power stations⁵³. In Japan, South Korea and France nuclear power is still considered an economically competitive source of energy. Furthermore, IAEA suggested

50. Joseph Gerson : "Nuclear Black-mail"; *The Bulletin of the Atomic Scientist*, May 1984, p. 56.

51. *The Bulletin of the Atomic Scientist*, December 1993, p. 8.

52. Norman Moss , *op.cit.*, p. 80.

53. Recently the British Labour Party has also dropped its long standing opposition to nuclear power expansion. Britain's latest 1,188 megawatts nuclear power station at Sizewell went into operation on 31 January, 1995 (*The Times*, London, 1 February 1995).

that no country should depend on any one source for more than 20% of its power supply⁵⁴. From the Indian point of view, the important factors that have to be addressed are the nuclear waste disposal and nuclear power reactor safety problems for international solutions through IAEA .

India's quest for nuclear technology had begun long before the treaty was constituted. India built Apsara, Asia's first reactor, in 1956⁵⁵, but has become Asia's second proliferator after China which detonated its first nuclear device in 1964. Then again, after its first test in 1974, India has neither tested nor made any nuclear weapons⁵⁶. Many in India think this has not yet been appreciated. India has to become self-sufficient in nuclear fuels because of its past experience with Canada and the US whose attitudes it thought were rather chauvinistic and arrogant. The US stopped the supply of enriched-U fuel for India's Tarapur power reactors in 1981⁵⁷. It can not, therefore, depend on the West for the fuels of its power reactors because of the risk that the supply can be stopped even for spurious reasons.

Besides, there is nothing to be gained by signing the treaty now, as the London Suppliers Club would not sell the equipment and technology for enrichment or reprocessing or so called dual-use equipment, parts or components even to countries which signed the NPT and accepted and abided by all the bilateral agreements, although this is clearly in breach of Art.IV of the treaty⁵⁸. Advanced computer technology, rocket and cryogenic technology, and equipment such as vacuum arc melting furnace which have wide non-military applications, have been classified as dual-use technology⁵⁹ and would not be

54. Norman Moss, *op.cit.*, p. 218.

55. Norman Moss, *op.cit.*, p. 81.

56. Vitallii Goldanskii and Valery Davydov, *op. cit.*; See, also K. Subrahmanyam : *Ways Out Of Race, op. cit.*

57. Vitallii Goldanskii and Valery Davydov, *op. cit.*

58. *Ibid.*

59. D. Albright and M. Hibbs, *op. cit.* See, also Linda Rothstein : "Plugging the Nuclear Pipe Line"; *The Bulletin of the Atomic Scientist*, Nov. 1993, p. 4.

available to India even if it accedes to the treaty . All these belie the common Western belief that the reasons for technological backwardness of the developing countries lie in their own deficiencies and confirm India's apprehensions that the industrialised countries are acting concertedly in putting hurdles in the way of developing countries overcoming their backwardness in order to preserve their economic interests and technological superiority. They are trying to force the non-nuclear weapons states to accept permanent military as well as industrial subordinate and subservient positions, which seems to be no less than the reassertion of the old imperialism.

To India, the gap that exists between the industrialised and the developing countries is fundamentally a gap in technology. Up to the 15th century some of the present developing countries were ahead of Europe in science and technology⁶⁰, even the Taj Mahal of India and St. Pauls Cathedral of London were built at about the same time. The lessons must be learnt from the decline of the Arab and the Chinese sciences which had lapsed into backwardness because of the respective society's refusal or inability to support and fund research in new fields.

In India's view, nuclear technology everywhere should be used for peaceful purposes, it cannot be implemented selectively. India firmly opposes any proliferation horizontal, vertical or spatial⁶¹ and is ready to sign the NPT and would accept the full scope safeguards if all the nuclear powers accept the same. The established nuclear powers reject this linkage, as they seem to think that it would undermine their authority; however, they think it is perfectly legitimate on their part to get things done under duress by the non-nuclear weapons states of the South . India also firmly rejects the notion that the nuclear weapons are only safe in the hands of the five permanent members of the Security Council⁶².

60. Abdus Salam : "What the Third World Really Needs"; *The Bulletin of the Atomic Scientist*, Nov. 1988, p. 8.

61. Nuclear India, 1987, *op. cit.*

62. K. Subrahmanyam, 1984, *op. cit.*

India also resents the fact that the US has taken quite an indulgent view in respect of Israel and South Africa, and to some extent of Pakistan - the three other proliferators who were or are US friends and allies⁶³. It is doubtful whether they could have achieved the nuclear capability without US complicity or its looking-the-other-way attitude when it suits US interests and strategy. Western policy seems to be concerned not so much with proliferation itself, but with who does the proliferating.

PAKISTAN AND THE NPT

Pakistan has not signed the NPT but maintains that if India signs, it would do so too. This seems to be a convenient ploy to hide its real motives and of course, to stave off the mounting international pressures. One suspects, however, that the motives behind Pakistan's nuclear weapons programme are more or less similar to those of India.

Pakistan's problem with India dates back to its birth in 1947. As Pakistan sees it, India has never actually reconciled itself to the creation of Pakistan, which became more tangled by the intention of accession to Pakistan of Hyderabad (a native Indian state whose subjects were predominantly Hindu but whose ruler, the Nizam, was a Muslim and on which pretext India forcibly annexed it), and Jammu and Kashmir (a predominantly Muslim native state ruled by a Hindu Maharaja and Pakistan invaded, albeit unsuccessfully) to India by the Maharaja. India took the Kashmir problem to the UN and had given a pledge to hold a plebiscite to decide the accession issue. Since then, however, India had gone back on its pledge and formally annexed Kashmir as one of its states. Pakistan points out that the UN and the West have done nothing to make India to honour its pledge in accordance with the 1948 UN resolutions. Another point Pakistan stresses is that at the time of the India-Pakistan war of 1971 no country had come to its aid even though Pakistan was a member of US-led SEATO

63. L. S. Spector : "New Players in the Nuclear Game"; *The Bulletin of the Atomic Scientist*, Jan./Feb. 1989, p. 29.

(South East Asia Treaty Organisation) and CENTO (Central Treaty Organisation). India has also forcibly taken Goa from Portugal in 1961, successfully annexed Sikkim in 1975, and blockaded Nepal in 1989 in pursuance of realisation of its foreign policy objectives⁶⁴. All these events influenced Pakistan's defence policy one way or another.

To Pakistan, the membership of international alliances and the guarantees given by the US and others have little or no value and cannot be relied on in time of national emergency; therefore, in the face of any nuclear blackmail or nuclear attack it can rely on or depend on none but itself. Pakistan also contends that India has not faced any economic aid suspension by the US and the West because of its nuclear weapons programme. In fact, until 1981 the US continued to supply enriched uranium fuel and heavy water for India's Tarapur power reactors even after the 1974 nuclear test⁶⁵ and France later continued its supplies until October 1993 without full scale safeguards⁶⁶.

Pakistani perceptions may have been shaped by other evidence of ambivalence, despite overwhelming evidence that Israel possesses nuclear and possibly thermonuclear weapons and has deployed them in its Jericho-II missiles (range 500 miles)⁶⁷, the US has not suspended economic and military aid to Israel⁶⁸. The US hushed up the Israel-South Africa joint nuclear test detected by its VELA satellite in 1979⁶⁹ and took no notice of Israel's nuclear technology transfer to

64. Ivan Eland : "Think Small"; *The Bulletin of the Atomic Scientist*, Nov. 1993, p. 36.

65. L. S. Spector, *op. cit.*

66. S. Weissman and H. Kosney, *op. cit.*, p309; See also *Nuclear News*, Vol. 36, NO. 9, Jul. 1993, p. 46.

67. L. S. Spector : "Good News, Bad News on Non-Proliferation"; *The Bulletin of the Atomic Scientist*, Sept. 1985, p. 16.

68. Norman Moss : "Vanunu, Israel's Bombs, and US Aid"; *The Bulletin of the Atomic Scientist*, May 1988, p. 7.

69. S. M. Hersh : *The Sampson Option*, Random House, 1991.

South Africa in exchange for enriched-U for Israel's own weapons programme⁷⁰. The US took a benign view of Israel's bombing of Iraq's IAEA safeguarded Osirak reactor (1981)⁷¹ in spite of the fact that Israel was a clandestine nuclear power and was not a party to the NPT, whereas Iraq was.

Israel had actively worked against Pakistan in 1971 during its war with India. Pakistan is so worried, mainly about an Iraq-type Israeli attack on its nuclear installations, that it has installed Crolate missiles for the protection of its Kahuta uranium enrichment plant⁷².

In 1980, Iraq unilaterally abrogated the Algiers' treaty and invaded Iran⁷³. The UN and the West not only failed to condemn Iraq, but most Western countries actively or tacitly supported Iraq because Iraq was then supposedly crushing the Iranian revolution, which overthrew the Reza Shah's repressive pro-western regime. Yet they later fiercely turned against Iraq because by now it had turned against their friends and interests in the region.

In contrast, the Bosnian Muslims have been fighting to preserve cherished Western values of multi-ethnic, multi-cultural and multi-religious democracy since the beginning of the crisis, which tragically, in the absence of any tangible Western interests, have not mattered much. And the Muslim countries, which are presumed to have influence in the West, appear to be incredibly impotent to influence the events in Bosnia or at the United Nations under whose banner, not so long ago, they fought the Gulf war in the name of the New World Order.

Many in Pakistan point out that the Muslims should have known better from their past experience - how the British Government

70. M. S. Serril : "Pretoria Comes Clean": *Time International, The Weekly News Magazine*, April 5, 1993, p. 32.

71. Ivan Eland, *op. cit.*

72. S. Weissman and H. Kosney, *op. cit.*, p. 193.

73. John Bulloch & Harvey Morris : *Saddam's War*, Faber & Faber, 1991.

reneged on its pledges given to the Arab people during World War I in exchange for their help against the Turks; and how every US president since 1967 had insisted that Israel, though still occupying Arab territories, must be allowed to maintain its military and technological superiority over 100 million Arab people⁷⁴; and all the Arab and Muslim nations are expected to submit to this demand. The European Union (EU) perhaps thought that the war in Bosnia would end with the decisive defeat of the Muslims resulting in a situation like that of Palestine, the inevitable concomitant of which would be the loss of claim to statehood by the Muslims, as "the right of conquest is the strongest of all rights, it is a right against which there is no appeal"⁷⁵.

Muslims should also bear in mind the earnestness and persistence with which Turkey pursued its pro-European and secular policies since the end of the World War I, to the extent it had even changed its alphabet from Arabic to Roman, but to no avail. Because Turkey is a Muslim country, had failed in its repeated attempts to become a full member of the EEC and it is now doubtful whether it would ever become one.

WHAT SHOULD BE DONE?

The NPT is an unequal treaty and to accede to it is to accept and formalise that inequality. The depository nations have, therefore, a great responsibility to make it profitable for both sides. Denial of technology or its knowledge is not an answer. Libyan students are now barred from studying nuclear technology-related courses⁷⁶ at institutions in the US and Canada, which they can study in India, Pakistan or if not, in Russia or in China. Denials did not work against the Soviet Union (which performed its first nuclear test in 1949)

74. Harry Hopkins : *Egypt the Crucible*; Marti Secker & Warburg Ltd., 1969.

75. W. Pereira and J. Seabrook : *Asking the Earth*; Earth Scan Pub. Ltd., London, 1990, p. 8,

76. M. B. Nathanson : "Academic Freedom versus Non-Proliferation - Libyan Case"; *The Bulletin of the Atomic Scientist*, March 1985, p. 29

and China (the Soviet Union had suspended its nuclear assistance in 1958), and it would not work in the future. Even North Korea's nuclear weapons programme seems to be largely an indigenous effort⁷⁷. Imposition of the doctrine of limited sovereignty on the developing countries has also very little chance of success because it smacks of imperialism.

The five permanent members of the UN with veto powers owe their membership to their victory in World War-II, when India and Pakistan (an abode of about a billion people) were not even born as independent states. The opinions and interests of the three Western Powers, namely the US, Britain and France, are constantly trumpeted as those of the international community. During the Gulf War, it was the US President not the UN Secretary General, who dictated the terms and decided the UN policies, and again it is Britain and France, not outraged international opinion, which have set the UN's Bosnia policy. For the non-proliferation treaty to be effective, the UN Security Council should truly reflect international opinion and be seen to be able to protect the interests of all nations, including the weaker ones. In its present form, the Security Council is seen by the Third World as the vehicle for furthering and maintaining the dominance of the world by the US and its European allies. It operates only when their interests are at stake, as has been clearly demonstrated in the Bosnian fiasco.

It is now an acknowledged fact that the Gulf War was not about Kuwait, not about democracy (what democracy, after all, was and is there in Kuwait or in Saudi Arabia?); not simply about oil and not about the sanctity of sovereignty (the US violated that sanctity in Libya and Grenada and in Panama when it thought its interests were threatened⁷⁸, and after all Kuwait was depressing the oil price by

77. "Developments concern for horizontal proliferation"; *Programme for promoting nuclear non-proliferation*, No. 17, Spring 1992, p. 10.

78. M. B. Young : "Ruthless Intervention"; *The Bulletin of the Atomic Scientist*, June 1991, p. 32.

producing far above its OPEC quota; Israel invaded Lebanon in 1982⁷⁹ in the name of its security and a part of Lebanon is still under Israel's occupation); not about the brutality of the regime, (it had not just started with the occupation of Kuwait, it had been there with the regime since its inauguration⁸⁰); not about the nuclear weapons (not much was known before the war but of course exaggerated accounts of it had been publicised widely in the Western press to justify publicly the already decided military action⁸¹; it was to assert, in a no longer bi-polar world, the supremacy of the West led by the US.

It was based on the assumption that if any one nation in the Middle East or for that matter in any other region of the world became powerful and dominated the region it would be dangerous for world peace; but it is conducive to international peace and security to be dominated by the US and its two European allies. It seems inexplicable to the inhabitants of those regions to be portrayed as the would-be rogues of the world by the same powers which had meted out great injustices to them in the past; and they are baffled by the fact that they could have no say, no role to play in what goes on in the regions they live in and are asked to accept, contrary to their historical experiences, that no harm will come to them from the nuclear weapons of their erstwhile colonial rulers⁸².

It is not likely that India and Pakistan would accept this theory. The West have to accept the new reality that they are not as powerful as they once were, neither economically nor militarily. They have to learn to compromise, negotiate and co-operate with these power 'minnows'. Failures on the part of the Western powers to intervene in

79. Joseph Gerson, *op. cit.*

80. John Bulloch & Harvey Morris, *op. cit.*

81. C. S. Fischer : "Build Confidence not Weapons"; *The Bulletin of the Atomic Scientist*, June 1991, p11. See also, J. C. Polanyi : "Collective Will or Law of the Jungle"; *The Bulletin of the Atomic Scientist*, June 1991, p. 11.

82. Incidentally, France still maintains ground troops in many of its former African colonies.

Bosnia have demonstrated once again how little a part morality plays in international relations. The reality that has to be faced is that the devastating effect of nuclear weapons on men and materials and on the environment would not be limited to any one particular country.

Bearing in mind the enormous costs, tremendous efforts and the talents invested in developing nuclear technology, it is unlikely that India and Pakistan would accept a roll-back like that of South Africa in the event of their accession to the NPT. The South African roll-back has taken place in a rare and exceptional political environment in which a white minority group wielding powers over a majority developed nuclear weapons and later in the face of eventual majority rule, feared that it would fall in the hands of the black people. Comparable internal and geopolitical situation does not exist in any of the regions of the world today.

And it is not at all certain that the US would be able or even try to persuade Israel to accept the NPT and agree to a roll-back because of the anticipated domestic political back lash. In any case, in the absence of any peace treaty with its Arab neighbours, Israel would never accept the treaty, and the hunch is that even with a peace treaty, Israel would not be very forthcoming in acceding to the treaty. If Israel does not sign the NPT and keeps its nuclear weapons, the political pressure on the Arab governments, whatever their hue may be, would build up sooner or later to go nuclear and would be exceedingly difficult to resist. It would, therefore, be a grave mistake to consider Iraq's, Libya's and even Iran's pursuit for nuclear weapons in isolation and as something unconnected with Israel's nuclear weapons. And in such a situation what should the West do? Should it wage a Gulf-type war on each and every nation that wants or intends to go nuclear, or should it address and seek solutions matching the reasons behind its decision and a broad international consensus based on persuasion rather than arm-twisting?

Clearly waging war and imposing sanctions against large number of countries is militarily and politically impossible, and as the case of

Iraq shows, ineffective too. Even blockades are unlikely to influence those taking decisions on nuclear matters. It must be recognised that the inhabitants of these countries are used to living just above or below the poverty line, and sanctions would make little difference to their life styles.

The West, led by the US, should approach the Arab-Israel problem from a new perspective, (and there is an excellent opportunity now that Israel and the PLO have signed a Norwegian - brokered peace deal), and try to find a solution in which Arab grievances and Israel's security concerns are adequately taken into account. The old approach, based on maintaining Israel's military superiority and perpetual Arab defeats, which is manifestly humiliating to the Arabs, has not worked in the past and would not work in the future.

The Arab and non-Arab countries of the region should be persuaded that it would be to their economic and political advantage not to embark upon nuclear weapons programmes, and for that to happen they must first be convinced that Israel's as well as the West's nuclear weapons will never be used against them for political or economic gains. They should be assured of technological co-operation and its eventual transfer so that the enormous oil wealth of the region could be utilised to transform it industrially and economically to the benefit of all who live there.

The Arab states and Israel, each have something to offer to the other. Israel its technology, especially in the field of arid agriculture, hydrology and high-tech; Arab oil supplies and a vast market for Israel's industries. The region could also benefit, in the wake of cessation of hostilities, from massive US, Japanese and European financial aid and direct investment.

The West should not be unduly worried about the myth of a great united Islamic power bloc. Among the Muslim nations of the world, there has never been Islamic solidarity in the past and there is none today and as far as can be seen one is not in sight either. Islam as an

ideology is not nationalistic, and the anti-Western movements in Muslim countries should not be perceived as xenophobic but rather as reactions to past and present Western policies, which could be surmounted if the right approaches are adopted. Showing contempt or prejudice for cultures and religions which are unfamiliar and different from one's own, hurling insults and demonizing the people and leaders one dislikes and dictating humiliating terms to the weak and vanquished are always counterproductive. If people feel they are being treated equally, fairly and respectfully, they can negotiate with dignity and confidence.

The West could help India and Pakistan to find a suitable solution to their Kashmir problem. This remains the most intractable problem in their relations. Pending the resolution of the Kashmir issue the West could initiate and promote bilateral and multilateral regional economic and industrial co-operation (which could be through SAARC⁸³), establish multilateral institutions such as the SAARC University, Research Organisation (for which they can draw upon the experience of CERN and DUBNA). Through these organisations, with international help they can address many of the serious problems that the Subcontinent faces today (e.g., population explosion, expansion of arid lands, coastal erosion, shrinking of tropical forests etc). In the process they may even be able to stop the brain drain from the region. And more importantly, when people attend the same university, work closely in the same organisation, follow the same rules and regulations, their attitudes toward one another are bound to change and eventually confidence and trust would grow. Millions of divided families live on both sides of the border, and they have a thousand years of shared history, culture, literature and language; and, above all, the thousand million people who live there are among the most desperately poor of the world. Therefore, given time and the right incentives they may be persuaded to see that it would be in the common interests of

83. SAARC - South Asian Association for Regional Co-operation, whose members are India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan and the Maldives.

their people not to join the futile race for nuclear weapons which would only drain their scarce resources without ever providing the security which they seem to seek. Since the defence of national territory against a nuclear attack is not possible, to make nuclear deterrence credible the country has to attain a second- strike capability which would inevitably lead to the vicious circle of a nuclear arms race.

The Subcontinent is so densely populated that one habitat is hardly a megaton or in many cases a kiloton away from another, be it a village or a city; be it on this side or that side of the border. There is no way they can use nuclear weapons without harming their own people or their enemy's innocent civil population. This realisation could have a sobering effect on the policy makers of both countries and may lead to restraint. The most encouraging fact is that India and Pakistan signed a bilateral agreement in December 1988 prohibiting attacks on each others' nuclear facilities and subsequently exchanged a list of their nuclear installations in accordance with the provisions of the agreement⁸⁴. The US should seize this opportunity to promote a regional arms treaty in South Asia which might be an effective alternative to the NPT, as there is suspicion about the IAEA's impartiality in the region.

It seems improbable that North Korea, with its small size and population, and a shattered economy, would become a real military threat to Japan, its erstwhile imperial master and today's world economic and technological giant, even with its yet-to-be-produced primitive nuclear bomb. But the experts in Washington predict that North Korea and Iran in few years time may launch a nuclear attack on the American mainland⁸⁵. The leaders of North Korea and Iran cannot be unaware of the fact that the primitive bombs they are supposed to make would be no match for the US nuclear arsenals, and retaliation could be so massive that no sane person would ever contemplate doing something that would make it inevitable. The leaders of

84. R. W. Jones, *op. cit.*

85. BBC News, London, 21 December 1993.

these countries have, in the past - their rhetoric aside - behaved cautiously and quite rationally in international affairs. Besides it could not have gone unregistered with them, the relentless ferocity with which the West pursued Iraq with their high-tech weapons destroying all its infrastructure including water, electricity and telecommunication facilities⁸⁶.

One has to seek the reasons for North Korea's quest for nuclear weapons somewhere else and find the correct incentives to bring it back into the fold of NPT. Perhaps, the prospect of unification of the Korean peninsula, removal of US nuclear weapons and eventual withdrawal of US ground troop; and the prospect of economic and technical co-operation with South Korea and the rest of the world, are some of them⁸⁷.

The present borders in Kashmir, Korea and between Israel and its neighbours have been determined by combat and it is clear that ultimate settlement cannot be achieved through war : it must be through consent. It is unfortunate that the US and its allies have not yet come out with political solution to the problems of any of the proliferation rife regions, covering India-Pakistan, Arab-Israel and the Korean peninsula except urging them, and then again unevenly, to sign the NPT, which by itself, as the events in Iraq have proved, is not a non-proliferation panacea. Only the West has the international prestige, diplomatic skill, technology and financial resources to take the lead.

Articles III, IV and VI of the NPT, for all practical purposes, have undergone amendment or else become inoperative because of the unilateral action of the nuclear weapons states and the London Supp-

86. M. B. Young, *op. cit.*; J. C. Polanyi, *op. cit.*

87. The recent agreement between the US and North Korea is a welcome one. The US agreed to arrange \$4bn for North Korea to construct two light water reactors to replace its graphite reactors and also agreed to arrange supply of oil to North Korea (*The Sunday Times*, London, 19 October 1994).

liers Club, MTCR (Missile Technology Control Regime) and recently COCOM (Co-ordinating Committee for Multilateral Export Controls). Therefore, the objections to the amendment on the ground that it would destroy the treaty is neither convincing nor tenable. Furthermore, if the *Sunday Times* report that Japan has made or is about to make nuclear weapon(s)⁸⁸ turned out to be true, it would be the death knell for the NPT. It would also strengthen the arguments that the industrialised non-nuclear weapons states with nuclear capability joined the NPT simply because they had already attained nuclear capability and could make nuclear weapons at very short notice. The best estimate we have of North Korea is that it perhaps has Pu for one or two nuclear bombs whereas Japan has an almost unlimited supply of it.

The five recognised nuclear powers could not agree to the CTBT because, they insist, they need the tests for reliability, safety and of course the modernisation of their stock-piles, but at the same time they insist that the threshold countries have the ability to make nuclear weapons and might already have done so without full-scale tests. The contradiction in their approach is quite apparent; if the relevant technology is available it should be available to them first⁸⁹. Moreover, it would seem they become interested in a banning treaty only when they have perfected a technique, and the treaty restrictions would not make any difference to them⁹⁰. If the technology is in fact available then the CTBT would not stop proliferation, horizontal or otherwise, though it would put a restraint on the public display of might and it would also mean, of course, less environmental pollution.

88. *The Sunday Times*, London, 30 January, 1994.

89. The US department of energy has recently approved the building of a giant laser (NIF : National Ignition Facility) to simulate nuclear explosion, (*New Scientists*, 29 October, 1994).

90. For example, the resumption of Nuclear test at Mururoa Atoll in the South Pacific by France and remarkably mild condemnation of France by the US and the UK.

CONCLUSION

The NWS should recognize the reality that it is not acceptable to the threshold countries that International security can be ensured only by maintaining their monopoly of the nuclear weapons. Although they got the NPT extended indefinitely (May, 1995) by reaffirming their old promise of Nuclear Disarmament given initially at the time of the institution of the treaty, the problem of accession of the de facto Nuclear Powers to the treaty has not been resolved and still remains to be addressed. Furthermore, the resumption of nuclear testing by France so soon after the extension of the treaty and the muted condemnation of it by the US and the UK has seriously dented the credibility of the West's commitment to the nuclear disarmament vis-a-vis the NPT. One option could be now to abrogate the present treaty and negotiate a new one in its place to accommodate the interests of the current threshold countries and make it flexible enough for the would-be proliferators to join later⁹¹.

91. Indian Foreign Minister Pranab Mukherjee in his speech at the UN General Assembly on Friday, 29 September 1995 maintained that this year's indefinite extension of the NPT would enable the NW states to maintain their nuclear monopoly and further added that it made the NPT a "pernicious document". See, *The Bangladesh Observer*, Dhaka, 1 October 1995.