

**Nuclear Proliferation In The Asia Pacific And
Its Security Implication For The Region**

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ABSTRACT

Title: Nuclear Proliferation In The Asia Pacific And Its Security Implication For The Region

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Conventionally after the invention of nuclear weapons world has observed its devastating effect on mankind at the end of World War II. Nobody wants its reputation, and number of Non-Proliferation Treaties made and agreed upon by many countries desire to be the nuclear power?

Asia Pacific always been the focal point for the super power or major powers because of its geo-strategic location. One of the greatest dilemmas of man conquering science is the amazing destructive power that it has bestowed upon him, that would allow him to destroy the world many times around. The power of the atom is one that is likely to be greatest threats to man's existence on this planet. With the demise of the cold war many had hoped that this threat would reduce, but this has not happened!

There were five nuclear states in proliferation scenario before which have increased to 20 as predicted. What was motive of this detonation and how is the proliferation scenario in the Asia Pacific? An in depth study has been carried out regarding this vis-a-vis the world. Efforts are made to find out detail impact of this proliferation in the aspects of politic, military, economy and environment. Therefore, the study of nuclear proliferation in Asia Pacific became very relevant and essential.

PREFACE

Security with nuclear weapons is achieved through generation of insecurity in the minds of competition and rivalry among the major powers. World War II ended with the dropping of the atomic weapons on Hiroshima and Nagasaki, subsequently its increased the nuclear development technology and strategy. Nuclear weapons have been an important instrument of national policy and its role as an instrument of politics is undisputed. The prospect of a nuclear war is a remote possibility and clashes of interests between major powers continue to dominate international developments, the political and military confrontation during the Cold War era has convinced them that national interests can be best defended through dialogue and military diplomacy. The world had witnessed nuclear holocaust in Asia Pacific (Hiroshima and Nagasaki), nuclear leakage at Chernobyl nuclear plant in the USSR in 1980s that affected both human lives and farming products. Its continuous with the present Japan's Fukushima nuclear plant leaks radioactive water through radiation contamination. Therefore, the issue is still significant as potential threats to the communities in this region and there is a need to examine nuclear proliferation in this sub-continent of Asia Pacific and its security implications for the region.

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ABBREVIATIONS

ASEAN	Association of Southeast Asia Nations
APEC	Asia Pacific Economic Cooperation
ARF	ASEAN Regional Forum
BFA	Basic Framework Agreement
BT	Bangkok Treaty
BW	Biological Weapons
CD	Conference on Disarmament
CEP	Circular Error of Probability
CFE	Conventional Forces in Europe
CTBT	Comprehensive Test Ban Treaty
CW	Chemical Weapon
EEZ	Economic Exclusive Zone
IAEA	International Atomic Energy Agency
ICBM	Intercontinental Ballistic Missile
INF	Intermediate Range Nuclear Forces
IRBM	Intermediate Range Ballistic Forces
MAD	Mutually Assured Destruction
NNWS	Near Nuclear Weapon States
NMD	National Missile Defence
NPT	Non Proliferation Treaty
NSA	Nuclear Supplier Agreement
NWFZ	Nuclear Weapon Free Zone

NWS	Nuclear Weapon States
OPEC	Organization of Petroleum Exporting Countries
PDD	Presidential Decision Directive
PNET	Peaceful Nuclear Explosion Treaty
PPNM	Physical Protection of Nuclear Materials
PRC	People's Republic of China
PT	Pelindaba Treaty
PTBT	Partial Test Ban Treaty
RS	Rarotonga Treaty
SA	South Asia
SALT	Strategic Arms Limitation Talks
SBT	Sea-Bed Treaty
START	Strategic Arms Reduction Treaty
TMD	Theatre Missile Defence
TNT	Theatre of Non Targeting
TOT	Treaty of Tlateloco
TTBT	Threshold Test Ban Treaty
UK	United Kingdom
UN	United Nations
UNNNS	United Nations Council Resolution for Non-Nuclear States
USA	United States of America
US	United State
USSR	Unions of Soviet Socialist Republic
WMD	Weapon of Mass Destruction

CHAPTER 1

INTRODUCTION

BACKGROUND AND IMPORNTANCE OF THE PROBLEM

The great Mahatma captured the true nature of nuclear weapon in these words. Nuclear weapons, from the very beginning, since Hiroshima and Nagasaki, have been used as instruments of terror, and therefore for coercion. The starkest reality about nuclear weapons is the massive destruction which they cause. The picture which comes before the eyes is that of the grisly death and destruction caused in Hiroshima and Nagasaki, where at least 106,000 people died almost immediately from the explosion and the fire storms that followed.¹

Security with nuclear weapons is achieved through generation of insecurity in the minds of other states². World War II ended with the dropping of the atomic weapons on Hiroshima and Nagasaki. Why did this happen? Even though much greater destruction and loss of life had occurred earlier during the firebombing of Tokyo and other Japanese cities, the surrender occurred because it displayed to the Japanese their vulnerability to an unprecedented form of horror. It 'was more than a weapon of terrible destruction; it was a psychological weapon'.³

¹ Freedman Lawrence, The Evolution of Nuclear Strategy, Second Edition, New York: St Martin's Press in association with International Institute for Strategic Studies (IISS), 1993, p. xv.

² Jasjit Singh, "Why Nuclear Weapons", New Delhi: Knowledge World in association with Institute for Defence Studies and Analysis, 1998, pp.9.

³ Freedman, op.cit.

Nuclear weapons have been an important instrument of national policy and its role as an instrument of politics is undisputed. Since the end of the second world war there have been at least 47 identifiable incidents where nuclear weapons and forces were alerted for use or threatened to be used.⁴ In these incidents, nuclear weapons played an important political role in bringing about an end to the conflict.

Most countries in the Asia Pacific have gradually become disregard of nuclear threat after the end of the Cold War. To them, the prospect of a nuclear war is a remote possibility. While clashes of interests between major powers continue to dominate international developments, the political and military confrontation during the Cold War era has convinced them that national interests can be best defended through dialogue. On the other hand, developments of the past decade in our region have indicated that the likelihood of limited war and confidence building armed confrontation between major powers and secondary states has increased sharply. This has driven many countries to focus resources on developing military capabilities in preparation for a limited high-tech conventional war.

While most countries in our region have settled for the scenario that future military are likely to be a localised high-tech conventional war, the nuclear issue has been resurrected by talk on how to insure a country's home territory and overseas military deployments against

⁴ Jasjit Singh, op.cit.

strategic and tactical nuclear missiles. This suggests that all major and some secondary powers still firmly believe that there could be no national security without a credible nuclear arsenal.

Both the US and Russia have recognised the importance of preventing nuclear weapons proliferation. Yet in the past four decades they have been the main culprits of vertical proliferation. Moreover US defence policy endeavours to deter enemy nuclear weapons attacks. Meanwhile Russia has repudiated its pledge on no first use of nuclear weapons and declared that it would use nuclear weapons to check foreign encroachments. On the other hand, both China and India believed that nuclear missiles could help create a new regional and global strategic balance in a new-world order.

An immense international ordering problem had to be addressed after Hiroshima and Nagasaki, after nuclear weapons had entered the mainstream of international politics with the onset of the East-West conflict, and after the engines of technological development and weapon production had been fired up. Although that problem found no sufficient solution, a nuclear order of great sophistication and effectiveness was fashioned during the Cold War. Essentially a normative order, albeit an order that reflected the interests and the technological and structural features of the time, it rested, I shall argue, upon two linked governmental creations: a managed system of deterrence, and a managed system of abstinence.⁵

⁵ William Walker, "Nuclear Order and Disorder", The Royal Institute of International Affairs, Vol, No. 4, Oct 2000, pp.90.

In the decade or so which followed the ending (at Reykjavik in 1986) of the nuclear Cold War, many came to believe that the ordering problem presented by nuclear weapons was diminishing and was capable of being cracked once and for all.⁶ Nuclear weapons could be removed from the foreground of international politics, to everyone's advantages, even if they could not be eliminated in the near-term. Unfortunately, confidence that this marginalization of nuclear weapons could be, was being achieved and undermined by a now familiar list of setbacks including the India and Pakistani test explosions the collapse of the UN inspection efforts in Iraq, North Korea and Iran's launches of ballistic missiles; the difficulties of ratifying security treaties in Moscow and Washington, culminating in the US Senate's rejection of the Comprehensive Nuclear Test-Ban Treaty (CTBT); and the US plan to deploy a national missile defence.⁷

The experience of the combat use of nuclear weapon is confined to the two which were dropped on Hiroshima (6th August 1945) and Nagasaki (9th August 1945) in Japan to bring World War II to the end. A major problem facing post-Hiroshima international society effort to control the spread of nuclear weapons. The immediate solution suggested by the sole possessor and user of nuclear weapons, the US was to submit all nuclear weapon and related technologies and material to an international body.⁸ Not surprisingly this proposal was rejected by the former USSR for the simple reason and adversaries do not trust each other in climate of distrust and rivalry. This has been the persistent pattern of behaviour, nuclear as well as non-nuclear

⁶ Ibid.

⁷ Ibid.

⁸ Dewitt David, Non Proliferation and Global Security, London, Billing, and Sons Limited, 1987, p.12.

adversaries even since. This led to the conclusion of the Treaty on the Non-proliferation (NPT) of nuclear weapons in 1968. In the meantime however, many countries acquired a degree of nuclear expertise without agreeing to submit their nuclear weapon option by joining the NPT or any other non-proliferation regime.⁹ This added to the persistence of adversarial behaviour implying that the threat of proliferation was there to stay. Thus, neither the fear of proliferation nor contemplation of this issue has been diminished.

STATEMENT OF PROBLEM

The effect of any nuclear bomb blast in the region will be colossal and will, in some from the other, spread out in the neighbouring regions. The world had witnessed nuclear holocaust in Asia Pacific (Hiroshima and Nagasaki) not too long ago and the memory of devastation, immediate and subsequent, is still vivid even half a century after the bomb. The nuclear leakage at Chernobyl Nuclear plant in the USSR in 1980s affected both human lives and farming products in the most of the East European and Scandinavian countries through radiation contamination. The region, therefore, has genuine reasons to be concerned about the issue as a whole, and should raise loud voices against nuclear build up which are potential threats to the very existence of the human society in the region. At same time, the neighbouring countries would also like to see that arch rivals resolve their outstanding disputes through peaceful

⁹ Afroze Shaheen, "Nuclear Rivalry and Non Nuclear Weapon states in South Asia, Policy Contingency Framework", Bangladesh Institute of Strategic Studies Journal, Dhaka, Vol 16, No.4, 1996, pp.423.

negotiations in the interest of their own people as well as their neighbours. The study of nuclear proliferation and its security implication for the region, therefore becomes relevant and essential.

PURPOSE OF THE RESEARCH

The aim of this paper is to examine nuclear proliferation in this sub-continent of Asia Pacific and its security implications for the region.

OBJECTIVE OF RESEARCH

The main objective of research is to identify the implication of nuclear proliferations on regional security in the context of present day development.

A thorough understanding of the geo-strategic scene and nuclear proliferation scenario of the world is a pre requisite to identifying the areas which require detail assessment. This will focus on the present day trend.

An understanding the motive and world reaction of nuclear blast by the super powers and major powers also speak proliferation concerned by the world community. This will give another intermediate objective to derive some recommendations.

RESEARCH METHODOLOGY

In approaching this topic, the research is mainly sourced from secondary data through published books and journals accessed from local and Thai libraries, articles and opinions obtained from the internet, interviews and discussion on the subject which will provide a basic foundation on the concept of nuclear proliferation and strategies. The research acknowledges data ideas extracted from individual works.

LIMITATIONS

The subject under study is a very complex one where solution too would not be simple. Thus the author has tried to approach the issue at its very roots. Most of the publications available for study are from scholars view point, justifying their point of view and not coming to the issue itself. Therefore, it has become the inherent limitation in writing this most interesting paper. Furthermore, many information pertaining to nuclear weapons and its possession were classified and could not be accessed.

CHAPTER 2

“There is no escape from the evil the power, regardless of what one does”

-Morgenthau

REGIONAL NUCLEAR CAPABILITIES

CHINA

Nuclear capabilities have been crucial in shaping the strategic environment in the Asia Pacific. China has been widely recognised as the most staggering nuclear power in the region. China could best survive a nuclear war and the avowal by Chinese leader since Deng Xiaoping that China needs a peaceful international environment in which to develop and establish an Asia Pacific regional security mechanism. Yet there remain issue disputed between China and its neighbours which still have the potential to bring about a conflict involving the United States.¹ Assessments of China's nuclear capabilities have never been uniform. Some sources put China's nuclear warheads in the region of 500. Some sources contend that as China has spent more than three decades in developing its nuclear arsenal, its capabilities should be far more formidable. They raise its warhead figure fourfold to 2500 as a more realistic reflection of its nuclear power. Moreover, they estimate that China has the capacity to expand its nuclear arsenal by 140-150 warheads a year.²

¹ Kenneth Walker, “Engaging China”, Asian Affairs, Vol. II (Vol. 88) Part 1, Feb 2001, pp. 55.

² Andrew Duncan, “Nuclear Development and Missile Defence”, Asia Pacific Defence Report, Feb 2002, pp. 25.

China has also develop delivery systems to enable its nuclear weapons achieve a global reach. For the purpose of demonstrating their regional and global impact we shall only single out for mention its medium and long range strategic nuclear missiles. China's more important medium-range missiles are DF-21 and DF-25. DF-21 is a mobile-launch ballistic missile propelled by a solid-fuel rocket engine and having a range of 1,800 km. DF-15 is a land-based mobile-launch missile propelled by two-stage solid-fuel-rocket-engine with a range 1,700 km.

China's long-range strategic missiles include DF-4, DF-5, OF 31 DF-41 and Zulong II, DF-4 with a range of 5,500-6,000 km is often being described as a limited-range intercontinental missile. DF-5 has an estimated range of 11,000 km and can carry a hydrogen bomb warhead with a force equivalent to four megatons of TNT. DF-31 uses a solid-fuel rocket engine mounted on a launching silo. It has been estimated range of 8,000 km and is equipped with MIRV capabilities. DF-4 is China's largest mobile strategic missile propelled by a three-stage solid-fuel rocket engine with a range of 12,000 km. Its survival capacity and sudden attack capabilities have been greatly improved compared with all previous types of China's inter continental ballistic missiles. Zulong II is a sea-launch ballistic missile treated by China as the final nuclear retaliatory measure. It is adapted from DF-31 with a range of 8,000 km and installed in the modified Xia-class nuclear-powered submarine (Type 094). Meanwhile, China is also stepping up research on improving the strike capability and penetration technology of its strategic weapons.³

³ William Burr, "The United States and The Chinese Nuclear Program", Harvard University International Security Affairs, Vol. 25 Winter 2000/2001, pp. 56.

SOUTH ASIA

Both India and Pakistan have staggering efforts to develop their nuclear capabilities. India's nuclear planning envisages the use of uranium, plutonium and helium in the successive stages of its nuclear weapons development. India detonated its first nuclear device in May 1974. The nuclear tests on 11th and 13th May 1998 indicated that India intends to develop nuclear weapons ranging from low-yield to fusion one, that is, fissile weapons between 12 and 100 kilo tonne, sub-kilo tonne device for tactical delivery and thermonuclear bombs of 150 kilo tonne or if boosted further with tritium, up to a mega tonne range. Some say that India has already accumulated enough plutonium for 390-470 weapons.⁴

Pakistan is said to have launched its nuclear weapons programme in early 1972. China is Pakistan's principal nuclear project collaborator and this has been reflected in the fact that Pakistan's nuclear weapons are following a plutonium track. There has been much talk that by the mid-1990's Pakistan was already in possession of nuclear warheads. But it did not actually conduct any nuclear tests before May 1998. The 28 and 30th May 1998 tests suggested that Pakistan may be capable of producing 3-5 different types of nuclear weapons from sub-kilo tonne to 50 kilo tonne. Pakistan's current stockpile of plutonium is sufficient for producing 25 bombs.⁵

⁴ Andrew Duncan, *op. cit.*

⁵ Kenneth R. Totty, "Nuclear proliferation on the Indian Subcontinent", John F. Kennedy Library for International Security Journal, Spring 2000, pp. 66.

Both India and Pakistan have also embarked on missile development programmes almost simultaneous with their nuclear weapon projects. To date, India has developed three different types of missiles. The first is a short-range, single-range, single-stage, liquid fuelled missile known as Prithvi. The second is an intermediate range strategic missile known as Agni. The third, known as Sagarika, is a sea-based nuclear missile propelled by solid fuel.

Pakistan has also produced a range of tactical and strategic missiles. The first two indigenous missile systems, HATF I and HATF II, have ranges of 80 km and 300 km respectively. In July 1997, Pakistan flight-tested HAFT-III with a range of 800 km and road modelled on China's M-9 missile. In April 1998, Pakistan tests-fired an intermediate range ballistic missile known as the Ghauri or HATF V. The Ghauri is liquid fuelled and road mobile with a range of 1,500 km. It is said to be largely based on North Korea's Nodong and use Scud engine. Pakistan is also developing the next generation ballistic missile known as the Ghaznavi with a range of 2,500 km and reportedly modelled on the North Korea Taepo Dong Missile.

India nuclear missile development is said to be mainly targeted on China. Agni III with range of 3,500 km could reach Beijing if fired from India's north-eastern territory. India has often treated China as its greatest security threat. But New Delhi is well aware that China does not treat India as its major strategic rival and, at the moment, relishes no prospect of establishing any dominant influence in South Asia. India's strategic competition with China is fuelled by a desire to divert attention from prolonged economic plight and the problem of national integration.

Pursuit of regional hegemony and big power status is, in fact, a form of cohesive nationalism. Pakistan is also facing a very serious problem of national integration.⁶ Islamabad has been using Islam and the Spectre of Indian threat to strengthen its people's sense of national identification. Thus, Indo-Pakistan nuclear and missile competition does not stem from diplomatic and defence factors but from serious contradictions associated with their internal pluralistic structure and their weak national integration. Missiles are mainly intended to dissipate domestic anti-government forces.

The second anniversary of the India and Pakistan nuclear tests passed in May 2000 with statements from leaders in both countries. On 23rd September 2001, President George Bush lifted all the sanctions imposed on India and Pakistan following their nuclear tests, although the sanctions imposed after the military coup in Pakistan remain in place.

Both India and Pakistan are deploying surface-to-surface missiles capable of delivering nuclear weapons. India already has the Prithvi with two versions for the army a 150 km-range missile and for the Air Force one with a range of 250 km. A third 350 km-range version is still being developed. The Air Force with Prithvi was successfully tests fired in December 2001 and the Army Prithvi on 31st March 2001, when it was announced that its minimum range was 40 km and would take 300 seconds to travel 150 km. This version was propelled using solid rather than

⁶ Jasjit Singh, Nuclear India, Knowledge World, New Delhi, 1998, p. 306.

liquid fuel. The analyst believes India has a maximum of five Prithvi launcher in service.⁷ In early Feb 2014, further boosting the Indian Navy's fire power with Indo Russian joint ventures, the 290 km-range Brah Mos supersonic cruise missile was successfully fired from a naval warship INS Trikand in salvo mode in the Arabian Sea. Defense News reported that Israel will collaborate with India to develop an integrated missile-defense system intended primarily to counter Chinese nuclear and conventional missiles. It will integrate India's long-range Prithvi air defense missiles systems.

India's first medium-range missile, the Agni I, tested to a range of 1,450 km in 1994. Agni II is a longer 2,500 km-range version being developed with a solid-fuel propellant. It was first test-fired in April 1999 despite pressure from the US and China not to precipitate a missile race on the sub-continent. After a second test in January 2001 the missile was declared ready for mass-production, and missiles are said to have been produced by October 2001. An Agni III also being developed with a possible range of 5,000 km carrying a 1,000 kg payload. On 25th January this year India tested a 700 km missile capable of delivering a nuclear weapon. Pakistan described the test as highly provocative and it was criticised by the US, UK, France and Germany.

India is developing a cruise missile and a submarine-launched ballistic missile. There are rumours of plans to develop an ICBM, the Surya; most components needed to produce this are

⁷ Andrew Duncan, op. cit.

available in the Indian space programme and the conversion of the space launch vehicle into an ICBM might take only one or two years.

Pakistan quickly responded to the Indian test of April 1999 by testing its Ghauri 2 (also known as HATF V) missile on 14th April 1999, achieving a flight of 1,120 km further full range tests of 2,320 km are expected. Pakistan had earlier tested Ghauri I, with 1,450 km range. Both these missile are strongly suspected of being North Korean no-Dongs, of which Pakistan is thought to have acquired 12 in 1998. Pakistan also has a series of shorter range missile. HATF II is believed to be the Chinese M-11, crates of 300 km, was issued to the army in 1997. The Shaheen (HATF V) which has a range of 700 km with 1,000 kg payload, was also tested in 1999 and production began in February 2001. Pakistan is also developing a liquid-fuelled Ghauri III with a claimed range of about 3,000 km and a solid-fuelled Shaheen II with a range is 2,500 km which is expected to be test-fired soon. Shaheen II is said to have a 1,000 kg payload and an accuracy of metres circular error of probability (CEP). Pakistan is also considering developing submarine-launched nuclear missiles. The military analyst credits Pakistan with 80 HATF III/Shahen and 12 Ghauri I.⁸ In Nov 2013, Douglas MacKinnon, a former White House and Pentagon official and author of the memoir 'Rolling Pennies In The Dark' had mentioned that nuclear weapons of Pakistan pose more danger to global security than the "over-exaggerated" threat from Iran while drastically under-estimating the growing threat posed by Pakistan.

⁸ William H. Overholt, Asia Nuclear Future, Westview Press Inc, Boulder, 1977, p.133.

Both countries therefore have a number of deployable missiles capable of delivering nuclear weapons, but whether either country has as yet produced war-heads capable of missile delivery is unclear. However both have aircraft capable of delivering nuclear weapons.

NORTH KOREA

Development of nuclear capabilities in North Korea started in August 1956 when it concluded an agreement with the Soviet-Union on its participation in work of the Dubna Nuclear Research Institute outside Moscow. Its first nuclear reactor was built in Yongbyon and began operation in 1965. Between 1986 and 1996, two more reactors were built in Yongbyon. Its first uranium refinery was built in Bakchan and began operation in 1982. Another uranium refinery was built in Pyongsan and began operation in 1990. More recently, the US suspected Pyongsan to have built underground nuclear facilities in Kumchangri. Meanwhile, North Korea had also developed nuclear fuel rod production, storage as well as nuclear waste disposal facilities and built an isotope production research institute in Yongbyon. From 1983 to 1988, North Korea had conducted 70 high explosive tests. Currently, North Korea is said to have acquired all the technologies for the production of nuclear weapons.⁹

North Korea's missile development programme started in 1976 when it secured several Scud-B missiles (Range 300 km) from the former USSR. Over the next two decades, North Korea has developed the Rodong and Taepo missiles with ranges from 1,500 km to 3,200 km. On 31st

⁹ Andrew Mack, "North Korea and the Bomb", *Foreign Policy*, No. 83, 1991, pp. 87.

August 1998, North Korea launched an earth satellite. But the US asserted that North Korea was actually testing a new missile with a range of 5,500 km – 10,000 km.¹⁰

The possibility of North Korea developing nuclear weapons has been a concern for some time as is its continued development and export of missiles and missile technology. Following international pressure not to test a long-range missile, in the summer of 1999 North Korea halted the preparations for the test and then announced a moratorium on testing. In July 2000 at talks in Malaysia, the North Koreans offered to halt missile exports in return for US\$1 billion a year compensation which the US refused to pay. Later it offered to halt missile exports if other countries would launch two or three North Korean satellite at their expense. In May 2001 the North Korean negotiations continued. The 1,300 km range No Dong is the longest range missile in Pyongyang current arsenal, with about 30 available. Under development is the Taepo Dong II which could have a 10,000 km range. Adding a third stage would bring North America within range.¹¹

In February 2001 North Korea threatened to end both the missile testing moratorium and participation in the `Agreed Framework` on nuclear matters, in June 2001 it threatened to restart work on its two nuclear reactors, construction of which had been halted as part of the Framework Agreement, unless compensation was paid because of the delays in completing the two light-

¹⁰ Andrew Duncan, op. cit.

¹¹ Robert Hewson, "Global Defence" Regional Security, 2002, pp. 78.

water reactors. The US intelligence community in the mid-1990s that North Korea had produced one, possibly two, nuclear weapons.

North Korea has as massed a force of over 600 Scud-class missiles and is one of the world's largest exporters of ballistic missiles. It deploys the No Dong medium-range ballistic missile, which can target Japan, and is working on the longer range Tapeo Dong system. In 1998, North Korea conducted a flight test of the Tapeo Dong I. As Mc Laughlin (Deputy Director, Bureau of Far Eastern Affairs – State Department) notes: If the Tapeo Dong I “were flown successfully on an ICBM trajectory, it would be able to deliver a small biological or chemical weapon to American soil”.¹²

A two-stage Tapeo Dong II, a more capable system under development, “could reach parts of the US with a nuclear-sized payload, while a three-stage version could reach anywhere in Europe or US”.¹³ On Feb 2013, North Korea had conducted an underground nuclear test, its third in seven years. A tremor that exhibited a nuclear bomb signature with an initial magnitude 4.9 was detected by The China Earthquake Networks Centre, Comprehensive Nuclear-Test Ban Treaty Organisation Preparatory Commission (CNTBTOP) and the United States Geological Survey. In response, Japan summoned an emergency to UN and South Korea raised its military

¹² Ibid.

¹³ William H. Overholt, *op. cit.*

alert status. North Korea's Army confirmed it had successfully conducted a third underground nuclear weapons test that used a miniaturized nuclear device with greater explosive power.

THRESHOLD NUCLEAR STATES – JAPAN, TAIWAN AND MYANMAR

Japan's nuclear weapons programme has the blessing of the US which has been aiding the project with plutonium reprocessing technology. Today, Japan has enough super-grade plutonium for a small arsenal of sophisticated nuclear warhead and could be developed overnight. Nuclear weapons might add little to Japan's prestige among developed nations. Moreover, nuclear weapons be useful in impressing Taiwan and Korea with the weight of Japanese claims-a consideration that could have at least some impact.¹⁴ Nuclear energy was a national strategic priority in Japan, but there had been concerned about the ability of Japan's nuclear plants to withstand seismic activity. Prior to the earthquake and tsunami of March 2011 and problems in stabilizing the failure of the Fukushima 1 Nuclear Power Plant had hardened attitudes to nuclear power which resulted Japan declared nuclear emergency and calls for a reduction in the nation's reliance on nuclear power.

Taiwan started its nuclear project in the late sixties when its main nuclear research centre, the Chung Shan Science Academy, was established. Taiwan could easily obtain reprocessed

¹⁴Op. cit.

uranium from its nuclear power plants which presently supply 35 percent of its energy requirements. Moreover, Taiwan has large nuclear weapon research personnel and is in command of advanced missile and nuclear weapon technology. Its present weapons-grade, material could within 3-4 months be developed into nuclear weapons. Taiwan has 5028 MWe of nuclear power capacity by means of 3 active plants and 6 reactors which makes up around 8.1% of each national energy consumptions.¹⁵

Taiwan's technical capability to build nuclear weapons and delivery system is impressive. She possesses an extremely sophisticated scientific establishment, including theoretical and practical expertise in advanced electronics, heavy industries, nuclear physics, nuclear power, and key military technologies. Thus Taiwan may well be the next nuclear power of Northeast Asia (Asia Pacific).

Myanmar's ruling military has confirmed for the first time that it is planning to build a first nuclear reactor with help from Russia, in a move is purely for peaceful purpose, purely for nuclear research training for scientists and also their need for radio isotope.¹⁶ For Myanmar, there was the additional insecurity and pressured by international community based on human right failures. Three years ago, a defector from the Myanmar military fled the country with extensive documentations of nascent secret programme¹⁷ and its widely known that some 5000 young Myanmar engineers have been trained in Moscow in missile, engineering and nuclear

¹⁵ Wikipedia, Energy in Taiwan.

¹⁶ New Straits Times, 23 January 2013.

¹⁷ www.Aljazeera.com. Access on 8 February 2014.

technologies. The US has pointed out that missiles cooperation between Myanmar and North Korea is real and must be stopped.¹⁸

¹⁸ Ibid.

CHAPTER 3

“We may anticipate a state of affair in which the two great powers will each be in a position to put an end to the civilization and life of the other, through not without risking its own. We may be likened to two scorpions in a bottle, each capable of killing the other but only at the risk of his own life”.

-Robert Oppenheimer
(The father of the first atom bomb)

NUCLEAR TREATIES STRATEGIES AND POLICY

The United State (US) in 1945 was the first country to become a nuclear weapons power and the only to have ever used it. The Soviet Union followed suit in 1949, and thus was set the stage for standoff which had threatened the annihilation all mankind. Wars have still raged and continue to range. Nuclear weapons have already committed great evils. The world community was split in two at the birth of these weapons and they give new impulses to the arms race and especially to the power politic of imperialism.¹ Since that landmark agreement was enacted, the number of nuclear weapons powers has not grown, while those states that have renounced nuclear weapons under the treaty's terms have multiplied. Throughout the cold war the threat of a nuclear holocaust had loomed over our planet. However it was during this period that efforts started to stem the threat of these weapons spreading, reducing the chances of an inadvertent nuclear accident. The purpose of this chapter is to briefly have a look at the treaties that were reached and the evolution of nuclear strategies during this period.

¹ Valentine Falin, The Last Nuclear Explosion, Novosti Press, Moscow, 1986, p. 17.

Nuclear Treaties and Agreements

International Atomic Energy Agency (IAEA). In 1957 the International Atomic Energy Agency was established under the auspices of the United Nations to oversee the development and spread of nuclear technology and materials.² Two years later a treaty was negotiated to demilitarize the Antarctic and to prohibit the detonation or storage of nuclear weapons there. Both the United States and the USSR were among the signatories. In 1961 the UN General Assembly passed the Joint Statement of Agreed Principles for Disarmament Negotiations, which was to be the basis of any future negotiations for disarmament.

Partial Test Ban Treaty (PTBT) 1963. This was the first major international agreement limiting nuclear tests, and was signed at Moscow on 5th August 1963.³ Only three nuclear powers the United States, Great Britain, and the Soviet Union were signatories to this treaty. The three countries agreed not to test nuclear weapons in space, in the atmosphere, or underwater. China and France had refused to sign this treaty.

In 1967 another treaty between the same nations limited the military use of outer space to reconnaissance only. The deployment of nuclear weapons in orbit was expressly prohibited.

² Ibid.

³ Ibid.

Treaty of Tlateloco (TOT) 1967. The Treaty of Tlateloco⁴ signed in 1967, was the first treaty of its kind banning nuclear weapons on a regional basis. The Latin American states agreed on banning nuclear weapons of all types from the region. Under this treaty the testing, manufacture, production or acquisition by any means, as well as the receipt, storage, installation, deployment and any form of possession of any nuclear weapons by Latin American countries was prohibited. This treaty is a landmark in the efforts for nuclear non-proliferation, as it was the first of its kind to ban presence of nuclear weapons in a particular region.

Nuclear Non-Proliferation Treaty (NPT) 1968. This was one of the most important agreements on arms control. It was signed at London, Moscow and Washington on July 1968, and entered into force on 5th March 1970. Signatories pledged to restrict the development, deployment, and testing of nuclear weapons to ensure that weapons, materials, or technology would not be transferred outside the five countries that had nuclear weapons (Great Britain, France, China, The United States, and the USSR).

In lieu of restraining from the production or acquisition of nuclear weapons and accepting IAEA supervised verification of the nuclear programs, the rest of the world states were assured of the following responses by the co-sponsors of the NPT (the US the USSR, and Britain) on

⁴ A Chand, Global Nuclear Politic: Planning Options Prospect-A Survey 1945-1983, UDH Publishers, Delhi, 1983, p. 30.

behalf of the nuclear weapons states (one which had manufactured and exploded a nuclear weapon or a nuclear device prior to 01st January, 1967):⁵

1. Seek the discontinuance of all (underground) nuclear weapon tests as a corollary to the partial tests ban treaty of 1963, which had banned such tests under water above ground or in outer space.
2. All states would refrain from the threat or use of force in accordance with the UN Charter.
3. Make available to other on a non-discriminatory basis the potential benefits from any peaceful applications of nuclear explosions. An appropriate international body would be set up to allow for such transfers (Article V).
4. Pursue negotiations in good faith to cease the nuclear arms raised at the earliest date and move toward nuclear disarmament (Preamble to Article VI of the NPT)

In May 1995, the near Universal membership of the NPT extended that treaty indefinitely. Today there are 185 parties to that treaty, but both India and Pakistan are not signatories.

UN Security Council Resolution for Non-Nuclear States (UNNNS) 1968. This resolution was adopted by the UN Security Council on 19th June 1968, and Provided for immediate assistance by the UK, USA and the USSR, in conformity with the UN Charter, to be

⁵ Ibid.

given to any non-nuclear weapon state party to the NPT which is the victim of an act or an object of a threat of aggression in which nuclear weapons are used.⁶

At a special UN session on Disarmament in 1978, the USSR announced that it would never use nuclear weapons against those states that renounce the production and acquisitions of nuclear weapon and do not have them on their territories. The US also committed, not do use nuclear weapons against any non-nuclear state that is signatory to the NPT, except in case of an attack on USA or its allies by non-nuclear weapon state allied to or associated with a nuclear weapon state carrying out or sustaining the attack. The UK also made a similar commitment.

Sea-Bed Treaty (SBT) 1971. This treaty prohibited the emplacement of nuclear weapons and other weapons of mass destruction on the sea-bed and the ocean floor. It was signed at London, Moscow and Washington on 11th Feb 1971, and entered into force on 18th May 1972.

The Nuclear Supplier Agreement (NSA) 1976. The nuclear supplier club was formed in August 1974, in response to the Indian nuclear explosion in May 1974, and mounting evidence that the pricing actions of the OPEC countries were leading more third world countries towards nuclear research programs. Initially participants of these discussions, conducted in London under the veil of official secrecy were Canada, the Federal Republic of Germany, France, Japan, the Soviet Union, the United States and the United Kingdom. On 27th January 1976 the seven

⁶ Ibid.

participants endorsed a uniform code for conducting international nuclear sales. This agreement requires the state receiving nuclear materials, equipment, or technology to abide by the following major provisions:

1. Pledge not to use the transferred materials, equipment, or technology in the manufacture of nuclear explosives.
2. Accept, with no provision for termination, international, safeguards on all transferred materials and facilities employing transferred equipment or technology, including any facility that replicates or otherwise employs transferred technology.
3. Provide adequate physical security for transferred nuclear facilities and materials to prevent theft and sabotage.
4. Agree not to transfer the materials, equipment, or technology to third countries unless they too accept the constraints on use, replication, security, and transfer, and unless the original supplier nation concurs in the transactions.
5. Employ "restraint" regarding the possible export of "sensitive" items (relating to fuel enrichment, spent fuel reprocessing, and heavy water production).
6. Encourage the concept of multilateral regional facilities for reprocessing and enrichment.

Threshold Test Ban Treaty (TTBT) 1974. This treaty was signed between the USA and the USSR, and it prohibited the carrying out of any underground nuclear weapon testing having a

yield exceeding 150 kilo tonnes. Although this treaty was signed in July 1974 it came into force after 31st December 1981.

Peaceful Nuclear Explosion Treaty (PNET) 1976. This treaty was a follow-n to the Threshold Test Ban Treaty of 1974, and prohibited the carrying out of individual underground nuclear explosion for peaceful purpose having a yield exceeding 150 kilo tonnes. As with the TTBT it came into effect after 1981.

Physical Protection of Nuclear Materials (PPNM) 1980. This treaty obliged the parties to ensure that during International transport across their territory or on ships or planes under their jurisdiction, nuclear materials for peaceful purposes is protected at the agreed level. Storage of such materials must be within an area under constant surveillance. This treaty emerged out of the Convention on the Physical protection of nuclear material, and its aim was to prevent nuclear material from falling into the hands of unauthorized users who may later use it for nuclear weapons.

Strategic Arms Limitation Talks (SALT). In the late 1960s, these negotiations were initiated between the USSR and the United States on the regulation of their strategic weapons arsenals. The SALT negotiations resulted in a series of agreements in May 1972 limiting the size and composition of the two nations nuclear weaponry. And an Executive Agreement Covering Certain Offensive Systems was ratified that placed limits on the sizes and numbers of specific

weapons systems. SALT II talks were held from 1972 to 1979, but the resulting treaty was not ratified by the US Senate because US-Soviet relations were deteriorating. Planned negotiations toward a comprehensive test ban were cancelled by US President Ronald Reagan in 1981.

Rarotonga Treaty (RT) 1985. In 1983 Australia, New Zealand and a number of South Pacific states. The treaty derives its name from the city of Rarotonga, capital of Cook Island where it signed.⁷

Strategic Arms Reduction Treaty (START). US-Soviet arms negotiations resumed in 1985. At a summit meeting in Washington D.C. in December 1987 President Ronald Reagan and Soviet leader Mikhail Gorbachev signed a treaty banning intermediate-range nuclear forces (INF), including many of those the United States had placed in Western Europe several years earlier. The treaty called for the destruction of all US and Soviet missiles with range of about 500 to 5500 km (about 300 to 3400 mi) and established a 13-year verification program. The INF treaty was ratified by the US Senate and the Soviet Presidium in May 1988, and in July 1991 the two men signed the Strategic Arms Reduction Treaty (START I) agreement requiring both nations to reduce their strategic nuclear arsenal by about 25 percent. Both sides also moved to reduce conventional weapons and to continue phased withdrawal of their forces from Europe. The collapse of the USSR in late 1991 raised complex new problems. Strategic nuclear weapons were located at sites in Russia, Ukraine, Kazakhstan, and Belarus. The START I

⁷ Aluse & Cippolonne, Nuclear Weapon Free Zones In The 20th Century, United Nations, New York, 1997, p. 16.

agreement had to be reconsidered with these four countries. In May 1992 these countries and the United States agreed to abide by the terms of the 1991 START agreement. The START I treaty became effective in 1994, when Ukraine signed the 1992 supplemental agreement.

President George Bush and Russian President Boris Yeltsin signed the START II Treaty in January 1993. This treaty called for the elimination of almost three-quarters of the nuclear warheads and all the multiple-warhead land-based missiles held by the United States and the former Soviet republics.⁸

Bangkok Treaty (BT) 1995. This treaty enabled the establishment of a nuclear weapons free zone in South East Asia. It was signed in Bangkok on 5th December 1995 and was the consequence of the desire of the regional states to establish a stable and secure region. The signatories of this treaty include Malaysia, Brunei, Philippines, Indonesia, Singapore, Vietnam and Myanmar as well Laos and Cambodia.⁹

Pelindaba Treaty (PT) 1998. This treaty enabled the establishment of a nuclear free zone in the continent of Africa. Although many African states had long cherished this goal, it was only after South Africa's accession to the NPT in 1991 that concrete steps could be taken in this regard resulting in the signing of the treaty at Cairo on 12th April 1996. The name Pelendaba is in

⁸ "Arms Control International, "Microsoft Encarta 96 Encyclopedia", 1993-1995, Microsoft Corporation. All right reserved.

⁹ Alues & Cpipolone, op. cit.

honor of the South African nuclear power plant that developed an important number of nuclear warheads which was later dismantled.¹⁰

Comprehensive Test Ban Treaty (CTBT). Since the signing of the Partial Test Ban Treaty in 1963, that outlawed nuclear explosions in the atmosphere, outer space and underwater, efforts had been on to seek a permanent ban on all nuclear explosions. However it was only in January 1994 that negotiations on this issue began at the Conference on Disarmament (CD) in Geneva, which is the International Community's principal forum for the negotiation of multilateral arms control and disarmament agreement, The participants of these talks included the five declared nuclear weapon states (US, UK, Russia, China and France), the three so called nuclear threshold states or Near Nuclear Weapon States (NNWS) namely Pakistan, India and Israel, and dozens of other states. However as the final text of the treaty emerged after two years of hectic negotiation, India complained¹¹ that the 'Entry into Force' provision violated its sovereignty and criticized it because it did not provide for a time bound commitment to nuclear disarmament. India professed a time bound framework for elimination of nuclear weapons, and refused to sign till the time bound framework is set to eliminate all nuclear weapons. Although the CTBT is a step in that direction the ultimate goal of eliminating nuclear weapons depends on many factors, the main amongst these is the creation of an environment allowing states with nuclear weapons to reduce their reliance on them over a period of time. While the end of the cold

¹⁰ Ibid.

¹¹ J.D Holum, "The CTBT and Nuclear Disarmament-The US View", Journal of International Affairs, Summer, Trustees OF Columbia University, New York, 1997, pp.270.

war has created such a conducive environment amongst the super powers, regional issues continue to enhance the threat of an arms race.

The Role of Non-Proliferation Treaty (NPT). The Non-proliferation treaty was signed in July 1968 and implemented in 1970. Although it has played a pivotal role in the non-proliferation efforts it was opposed by the non-aligned nations led by India due to its unusual nature, in the sense that it laid down two sets of rights and obligations for two categories of countries. The rationale of the NPT appears to be one thing to the three nuclear weapons states that sponsored it, and something else to other nations in different situations and holding different interests.

The nuclear have-nots objected to this treaty because while allowed the nuclear weapon states to continue to develop more sophisticated weapons, it denied them from doing the same. The logic of the NPT as perceived by India is greatly reverse to that perceived by Washington and Moscow. In contrast to their view that the further spread of nuclear weapons will be dangerous, the Indian viewpoint is that the basic danger to world peace is found in the motivations and actions of those possessing nuclear weapons specially the United States.¹²

The positive aspect since the NPT came into force on March 5th 1970, is that except India, no country had overtly crossed the nuclear threshold and openly declared itself a nuclear weapon state. Today the expectations of the signatories of this treaty are much higher than were

¹² K. Subrahmanyam, "The Challenger Of Nuclear Arms In South Asia", India Institute of Strategic Studies, 1998, pp. 15.

in 1968. Their ambition is not only to prevent nuclear proliferation but to role back new covert nuclear weapons programs and to achieve significant cuts in the nuclear arsenals of nuclear weapons state.

US-Soviet Experience with Nuclear Weapons. There are many who profess that if the United States and Soviet Union safely managed a nuclear competition, why shouldn't Asia Pacific do the same? It must be realized that the history of the cold war was not without its risks, instabilities, high costs, extreme dangers and tempered by luck. It's history that perhaps mankind would not like to repeat.

A country's decision to pursue nuclear capabilities is influenced by a number of factors. Often, however, they may be influenced by misperceptions of the other state activities. This action reaction dynamics can lead to a potentially dangerous and destabilizing situation. The uneasy peace during the cold war era between the US and Soviet Union was perpetuated by an arms race making weapons more dangerous and potentially destabilizing all in the quest for a secure peace. Although each side spent billions on elaborate command and control systems, yet there were occasions when nuclear accidents and miscalculations could have led to an inadvertent nuclear exchange. For example, it is now clear that the Soviet Union and United States came far to the brink of nuclear war during the 1962 Cuban Missile Crisis then was known at that time.¹³ Thirty years after the fact, newly released historical records portray American and

¹³ J.D Holum, op. cit.

Soviet leaders making decisions that could have led to a nuclear war based on incomplete and in some cases incorrect information. At one point during the crisis the United States considered the invasion of Cuba, operating under the assumption that there were no nuclear weapons yet in place. Yet, it was learnt later that approximately 60 intermediate range and 100 tactical warheads had already arrived. Had the invasion taken place the Soviet Union may well have responded with a nuclear attack from the island. The economic cost of the nuclear competition between the two countries was also exhaustive. Over 50 years the US spent hundreds of billions of dollars on developing and maintaining its nuclear stock pile. The strain on the Soviet economy was even more destabilizing.

Liddell Hart concluded that in a nuclear encounter nothing of benefit could be achieved. When both sides poses atomic power, total warfare makes nonsense. Total warfare implies that the aim, the effort, and the degree of violence are unlimited. Victory is pursued without regard to consequences any unlimited war waged with atomic power would be worse than nonsense, it would be mutually suicidal.¹⁴

Although many believe that atomic bombs would make all warfare unthinkable, it is by no means a guarantee that all warfare would disappear. However, it is true that unless the belligerent leaders are crazy, it is likely that any future war between two nuclear weapon states will be less unrestrained and more subject to mutually agreed rules. As was evident during the

¹⁴George Lee Butler, "Time to End The Age of Nukes" The Bulletin of Atomic Scientists, March/April, 1997, pp.36.

cold war period when the US and the USSR avoided direct confrontation but preferred subtle means of infiltration that would check the employment of nuclear weapons.

THE STRATEGIC ENVIROMENT

Global Strategic Environment

The end of the Cold War brought an end to bipolarity and the ideological battle between the East and West. Some observers opined that there would be a relative peace. However, Robert Jervis provides some disagreement on this. He described the post-Cold War environment as a 'systemic polarity'.¹⁵ He argued that "the proliferation of conventional arms transfers and the increased political autonomy of developing states in the wake of the Cold War could make the post-Cost War Period the most turbulent transitional period in the history of international politics."¹⁶

Notwithstanding above said, the Post-Cold War environment among the developed states saw the prospects of conflict among them becoming increasingly remote due to their economic

¹⁵ Robert Jervis, "The Future of World Politics: Will It Resemble The Past?", International Security, Vol. 16, No 3 (Winter 1991/92), pp. 41-42.

¹⁶ Christopher S. Parker, "New Weapons for Old Problem: Conventional Proliferation and Military Effectiveness in Developing States", International Security, Vol. 23, No. 4 (Spring 1990), pp. 120.

interdependence, political democracy and nuclear weapons. This can be substantiated that of 27 registered conflicts on 1999, only two are in Europe.¹⁷ In fact there is also suggestion that there will no longer be a general war but future conflict will be conflicts to limited regional and intra-states conflicts.

Asia Pacific Strategic Environment

The characteristics of the interstate relations among the Asia Pacific states after the Cold War is not the same as those of the developed states. Aaron Friedberg argues that Asia is likely to see more international conflict than Europe. Although ethnic civil wars may occasionally occurs in Europe, in the long run, it is Asia that seems far more likely to be the area of great power conflict. Since the Asia Pacific states are no longer attached to their superpower patrons, they set out to compete for security and regional hegemony according to the realist paradigm in the regional security system. Although this period has not seen much of conventional war between states, there is an upsurge of intra-states conflicts in the region, primarily based on ethnic and religious issue.¹⁸ The hot spots are in Asia Pacific Particularly the South Asia, and East Asia.

¹⁷ Taylor B. Seybolt in collaboration with the "Uppsala Conflict Data Project – Major Armed Conflicts" SIPRI Yearbook 2000: Armaments, Disarmament and International security, Oxford University Press, 2000, pp. 68.

¹⁸ Taylor B. Seybolt, *ibid.*

The strategic environment enveloping in the Asia Pacific can be expressed in four troubling trends.¹⁹ Firstly, there is still a dangerous and unpredictable level of social instability in the region. Some examples are the political instability in Indonesia, the resurgence of internal unrest in the Southern Philippines and the political turmoil and violence in Fiji, the Solomon Islands and Papua New Guinea. Secondly, the economic outlook is clouded by the uncertainty of the momentum by the recovery toward new economic growth. Thirdly, the development of the missile defence system by the US could pose a serious destabilizing element as it threatened China's limited strategic deterrence. Fourthly, the institutional capacity in Asia Pacific Economic Cooperation (APEC) Regional Forum (ARF) is questioned especially after the 1998 economic crisis and the 1999 East Timor crisis.

Since Third World states are characterised by political and economic instability, there is likelihood that the intra-state conflicts will remain to be a future among most Asia Pacific countries. As a matter of fact, of the 27 registered conflicts mentioned above, 17 conflicts have been active for eight years and 4 are recurrent.²⁰

Nuclear Doctrine and Strategies

One of the most basic and important doctrines that emerged during the unstable period of the nuclear age has been the one of Mutually Assured Destruction (MAD). The dimension of

¹⁹ The Regional Overview, Asia Pacific Security Outlook 2013, <http://www.jcie.or.jp/thinknet/outlook2013.html>.
Access on 4 January 2014.

²⁰ Taylor B. Seybolt, op. cit.

deterrence that has emerged after the introduction of nuclear weapons aims at making war unprofitable by posing a credible counter threat. Aggression is deterred by the ability of the adversary to deliver a devastating response. If deterrence were to fail, the consequences would be fatal for both the adversaries. It is true that in the nuclear age, it was threat of mutual genocide that led the two super powers (before the disintegration of the USSR) to look for ways of diffusing tension and mistrust.

Different nuclear strategies appeared during the cold war and almost all laid emphasis on the importance of extended deterrence. The US not only deterred a nuclear attack against its territory, but protected its European allies from being overrun by conventional forces.²¹ The American nuclear guarantee was a Commitment on which Western Europe depended during the crucial years following the Second World War, and the cold war itself. It was a threat which the Soviet Union appeared to take seriously, yet for America it had proved almost impossible to plan a sensible strategy for a nuclear war.²² The issue of selection of targets ranging from cities, industrial complexes or military installations and the decision of "First use" or "Second use" of nuclear weapons has divided nuclear strategists and planners. The initial American strategy proclaimed the First use concept, but there always remained doubts as to whether this strategy would actually be followed. In 1982, four former senior American policy-makers (including Robert McNamara), advocated a policy of "no first use of nuclear weapons", later McNamara published an article suggesting that in practice, during his tenure in office, the United States had

²² Ibid.

been following a de-facto no first use policy.²³ This underlines the fact that it has been nuclear deterrence that is the only viable nuclear policy, the uncertainties involved deters aggression, and hence promotes restraint. Although nations have prepared and deployed nuclear weapons contemplating their use, the fear of the whole process getting out of hand had remained the strongest source of caution during the cold war. As Lawrence Freedman describes, "The Emperor Deterrence may have no clothes, but he is still Emperor".²⁴

Asia Pacific's Nuclear Doctrine

There are many who suggest that if the two super powers could sustain nuclear deterrence during the cold war period, why not India, and Pakistan, North Korea and China. However, comparing the cold war history to a nuclear standoff in Asia Pacific would be a very dangerous presumption. How feasible would it be in the real sense having two effectively nuclear-armed and hostile opponents depend for their safety and well being on the prudence and self-restraint of the other. Constantly being a nuclear adversary's mercy, or counting on his perpetual rationality curb any temptation to attack, is bound to be uneasy; is hardly a recipe of security, and is a dubious form of sovereignty. To the extent either nuclear protagonist has actively aggressive proclivities, tomorrow not today, the relationship tends to be that much more unstable.

²³ Ibid.

²⁴ Ibid.

While the relationship between the US and Russia was quite different than what exists between India and Pakistan, or China and Taiwan it is a fact that the US-Russia had on more than one occasion come very close to a nuclear showdown. What is noteworthy is that while in the case of US and the Russia, the channels of dialogue and hotline remained active the Indo-Pakistan relationship is characterized by suspicions and reluctance to engage in a meaningful dialogue. It would not be an exaggeration to describe the Indo-Pakistan relations as less developed than were US-Soviet relations during the height of the Cold war. In fact the period of the cold war, was in itself a period during which the efforts for disarmament had been initiated. While a nuclear exchange in itself would mean a disaster, neither country is capable of coping with. The financial cost of developing nuclear warheads, command and control systems would be too prohibitive for the already burdened economies of these two countries, which have yet to achieve a decent living standard for their citizens. In terms of per capita income, both Pakistan (at \$450 per year) and India (at \$380) are amongst the poorest nations in the world. Literacy rates are below 50%. Yet both at present continue to spend almost 25% of their annual budgets on building their war machines.

In addition to its serious implications for regional security, a nuclear arms race in Asia Pacific would also effect the international security environment. Were India to deploy nuclear weapons, not only would Pakistan follow suit, concern in neighbour regions including China would increase. Many countries in East Asia and Middle East which have traditionally supported proliferation may end up reviewing their non-nuclear weapon status.

The International community has come a long way since 1957 when the IAEA was established to oversee the spread and development of nuclear weapons. The NPT was supposed to be the first step towards the non-proliferation of nuclear weapons however the cold war did not give it an opportunity to develop. It was only after the end of the cold war that sincere efforts have started towards the ultimate elimination of nuclear the nuclear threat. States once opposed to the NPT like China and France are now signatories to it. South Africa which had an advanced nuclear weapons capability has forsaken it in the interest of International peace. The US and Russia have agreed to reduce their strategic nuclear arsenals to one third of the cold war level, which may be considered a positive step in the right direction. However the developments in Asia Pacific run quite contrary to this international trend. In fact this may result in a new reluctance amongst the nuclear powers to move towards the ultimate objective of nuclear disarmament. The existence of nuclear weapons creates the risk of catastrophe, but it also creates the only way to ameliorate that risk by minimising the possibility of war between the major powers. Nuclear weapons have this dual nature; they are only possible solution to the problem they pose.²⁵

NUCLEAR POLICY

China and India are the two states in the Asia-Pacific that have more explicitly spelt out their nuclear polices. Basically China's nuclear policy stresses the complete elimination of nuclear weapons by imposing a complete ban on the import and export, manufacture, test and

²⁵ "George Lee Butler, A Post-Cold War Nuclear Strategy Model, National Press Club Remarks, Washington D.C, December 4,1996.

storage of nuclear weapons, by completely destroying all nuclear weapons and carrier vehicles in the world and by disbanding all organisations that are currently researching, testing and producing nuclear weapons. Moreover, China has unilaterally declared that it would not be the first to use nuclear weapons at any time and under any circumstances. It stresses that international agreement on no deterrent use of nuclear weapons against non-nuclear states and on the establishment of nuclear weapon zones could help buttress the non-proliferation system.

Yet this nuclear policy could hardly conceal the fact that nuclear arms form the most vital component of China's military development. Beijing believes that the deployment of nuclear weapons significantly enhance the deterrent value of conventional arms, could that nuclear armaments are a cheap, yet reliable, form of security strength; and that nuclear power is an important vehicle for the pursuit of regional and global influence.

India's nuclear policy stresses development of nuclear technology and capability for peaceful purposes. But eventually it has endorsed the nuclear weapons option because of the proliferation of nuclear weapons. While India proposes universal nuclear disarmament as the sole option for eliminating the threat of a nuclear war, it does not believe that the existing mechanisms like arms control and nuclear weapons non-proliferation treaties and nuclear weapons free zone could achieve the objective. To India, an arms control treaty like SALT I simply legitimises the possession of nuclear weapons by nuclear weapon states.²⁶ The Nuclear

²⁶David C. Gompert, Nuclear Weapons and World Politics, Mc Graw-Hill Book, USA, 1980, p.215-216.

Proliferation Treaty, on the other hand, does not ensure the non-proliferation of nuclear weapons but merely halt the dissemination of weapons to non-nuclear weapons states without imposing any curbs on the continued manufacture, stockpiling and sophistication of nuclear weapons by the existing nuclear weapons states. Finally, India insists that Nuclear Weapons Free Zone (NWTZ) should simply not only exclusion of nuclear weapons from the free zone but also ensure that the zone is free of weapons launched from other parts of the world.

But India's refusal to endorse the Comprehensive Test Ban Treaty (CTBT) and its active participation in South Asian nuclear arms clearly suggest that New Delhi has disassociated itself from nuclear disarmament. India has justified its nuclear weapons as a response to China's security threat. Moreover, India believes that nuclear weapons could help arrest the decline of its international status and build its regional hegemony.²⁷ Myanmar has consistently looked to Russia for assistance in the nuclear field. However it is unclear whether the government is continuing to send scientists abroad after its decision to sign the Additional Protocol and increase its transparency regarding its nuclear programme. Myanmar's immediate neighbours of ASEAN have also fallen silent the issue and has not followed through in investigating the allegations, given the rush to take advantage of opening markets and lucrative oil and gas contract perhaps little evidence exists suggest that Pyongyang has supplied information or material to support such as programme in Myanmar. Myanmar must come clean on the ambition of his military to

²⁷ Ibid.

break away from Myanmar's past and hidden behind that they have no significant nuclear materials or other means to allow stability in this region.²⁸

²⁸ www.Aljazeera.com, op-cit.

CHAPTER 4

"In Greek mythology the gods sometimes punished man by fulfilling his wishes too completely. It has remained for the nuclear age to experience the full irony of this penalty"

- Dr. Henry Kissinger

NUCLEAR PROLIFERATION AND CHALLENGES THE ASIA PACIFIC

INTRODUCTION

Despite the realisation of the waste, brutality and inhumanity of warfare, war has historically appears to be an integral part of human affairs. As nations pursue their self and national interest to advance their own positions of power in the world, they piously devoted part of their resources to build up military strength. The political realities coupled with other reasons that will be discussed in this paper are some of the contributing factors to the proliferation (the rapid increase) of weapons, whether conventional or nuclear. On top of its direct consequences, the phenomena provide great challenges to all countries in the world.

While the whole world has condemned the destructive potential of nuclear energy, all agree that a major and steady expansion of nuclear power is indispensable for future wellbeing. Nuclear energy is envisioned as the ultimate source to quench the ever increasing energy demand of mankind. Burning of one kilogram of uranium releases energy equivalent to about twenty million kilowatt hours of electricity or the actual burning of 200 tons of high grade coal. Thus uranium burning is 200,000 time more efficient. The Soviet Union was the first nuclear power to commission in 1953, the world's first nuclear plant for the purpose of generating electric power,

since then a number of nations specially the industrialized ones have turned towards nuclear energy to fulfil their power requirements.

THE STATE OF THE PROLIFERATION AND REASONS FOR PROLIFERATION IN THE ASIA PACIFIC

The State of Nuclear Proliferation

Presently there are five Nuclear Weapon States (NWS) that are recognized by the 1968 nuclear Non-Proliferation Treaty (NPT) namely the US, Russia, UK, France and China. These states have established structure and doctrine to nuclear weapons, the reliability of which had been tested and proven throughout the Cold War period.

However, this paper is more concern about the three unrecognised NWS (of Third World countries) that are not signatories to the NPT but are believed to possess nuclear weapons or components of nuclear weapons that can be quickly assembled Israel, India and Pakistan.¹ Israel has developed a relatively advanced nuclear arsenal, over time, with initial French assistance and US acquiescence. Since 1961, Israel has adopted a "nuclear ambiguity" official policy. None of these three states are signatories to the Comprehensive Test Ban Treaty (CTBT). India tested the first nuclear device, claimed for peaceful means in 1974. On May 11th, 1998 India test fired her Agni II Intermediate Range Ballistic Missile (IRBM). Two days later, India conducted two more

¹ The State of Nuclear Proliferation, <http://www.armscontrol.org/FACTS/statefct.html>, Access on 24 December 2013.

explosions.² The test-firing drew a swift response from Pakistan, which on 14th April 1998, tested Ghauri 2, an improved version of IRBM Ghauri 1, followed by launching the shorter range Shaeen.

On top of the three countries earlier mentioned, there are also few states of immediate proliferation concern like North Korea, Iran, Iraq and Libya. Not only that these four states sought the capacity to make nuclear weapons as well as other weapons of mass destruction, their current governments are thought capable of employing them.

It has been noted that although the problem of building a prototype has become simpler, the challenge of fielding a fully-fledged nuclear force grows more daunting.³ Therefore, many states must have considered the financial and security costs of going nuclear far outweigh the perceived advantages although it is estimated that there are about forty countries in the world that are capable in developing nuclear weapons technology, if they want South Korea and Taiwan, for example, find better reason not to do so, like relying on the US strategic deterrent force. Therefore, although it is of primary concern, it is very unlikely that there will be any drastic increase in nuclear-weapon-capable states among the Third World (Asia Pacific) countries, in the immediate future. Nevertheless, the presence of three unrecognised NWS and few known proliferates of the Asia Pacific countries are of significant concern.

²South Asia's Nuclear States, 1998 News of the World, <http://www.infoplease.com/ipa/A0781486.html>, Access on 13 January 2014.

³ Ibid.

Reasons for Nuclear Proliferations

Many scholars had offered suggestions for the proliferation of weapons, particularly nuclear, to take place. Jorn Gjelstad and Olav Njolstad suggested that unstable regional security, international prestige, option for bargain aggressive political intention, to form an alliance and economics.⁴ Scott D. Sagan offered the security model, the domestic politics model and the norms model.⁵ Kenneth N. Waltz offered few other reasons namely great powers always counter the weapons of other great powers, uncertainty of protection by ally, no NWS allies, fear of enemy's conventional strength, find relatively cheaper and safer to running conventional arms race, for offensive purpose and to enhance international standing.⁶

Other than those mentioned above, the more valid reasons for Asia Pacific countries to become nuclear proliferates are due to powerful combination of political military and economic incentives. India and Pakistan, for instance, finds political and military reasons to acquire nuclear capabilities. India wanted to check on Pakistan and China. On the other hand, India's move to acquire nuclear capability enticed Pakistan to do the same. Similarly is Israel which she finds political and military excuses to acquire nuclear capability amidst the troubled Arab states. North

⁴"Jorn Gjelstad and Olav Njolstad, Nuclear Rivalry and International Order, Sage Publications, London, 1996. p. 106.

⁵Scott D. Sagan. "Why Do States Build Nuclear Weapons?" International Security, Vol. 21, No. 3, Winter 1996-1997. pp. 54-86.

⁶Kenneth N. Waltz. "The Spread Of Nuclear Weapons: The More May Be Better" Adelphi Paper No. 171, International Institute for Strategic Studies, London. 1981. pp. 7-8.

Korea has all political, military and economic incentives to develop nuclear weapons. Besides holding the US at ransom politically, checking on South Korea military threat, she had also gained economically from the Light-Water Reactors and heavy fuel oil annual shipments until the US pledged reactor is completed.⁷

Conventional Weapons Proliferation

As for conventional weapons, some argued that the post-Cold War era has made economic necessity as the reason for the continued transfer of conventional weapons and technology.⁸ A shift has taken place from the traditional single-country patterns of weapons production toward internationalisation of the development, production and marketing of arms. Although conventional arms proliferation is less spoken than nuclear, they are flooding into crisis and areas in the Asia Pacific faster than before. The post-Cold War has dramatically increased the number of exporters. New market for non-state actors in this business has grown disproportionately. Beside the increased number of suppliers, the trends after the Persian Gulf War include the globalisation of arms producing industries and the importance of dual-use technologies. There are also black-market sales, secret procurement and concealed sales that supply many of the insurgent and ethnic wars that are waging the Third World countries.

⁷Global Missile Proliferation, <http://www.armscontrol.org/ACT/feb02.htm>. Access on 10 January 2014.

⁸Richard A. Bitzinger, "The Globalisation of the Arms Industry: The Next Proliferation Challenge" International security, Vol. 19, No 2 (Fall 1994), pp. 170-198.

Just as the previous years, in 2000, the Middle East spends more than any other region, and accounting for 40% of the world market and the largest buyer was Saudi Arabia that took deliveries of US \$7.3 billion.⁹ The recent development (pertaining to the Iraq crisis and Israel crisis) will likely see that the Middle East will remain as the main destination for global arm exports in the foreseeable future. Nevertheless, other major weapon agreements that will give impacts specifically the Asia Pacific region, which the extensive package offered by US to Taiwan (that include 4 Kidd-class destroyers, 8 diesel-electric submarines and, 12 maritime reconnaissance aircraft) and the Russia-India arms deal for up to 140 Su-Mk I aircraft and 310 T-90S main battle tanks.¹⁰ This will no doubt entice a counter-action by those who perceived this as a threat.

Reasons For Conventional Weapons Proliferations

After the Cold War, the trend of arms forces in the developed countries is downsizing. The US Armed Forces, for example, is reduced by a third or more than a decade ago.¹¹ The armed forces in Europe are reduced by about 14 percent as the result of Conventional Forces in Europe (CFE) Treaty on 19th November 1999.¹² Therefore, the industrialized nations have to sell arms outside their traditional markets in order to keep their industries producing at an

⁹The Military Balance 2001-2002, The International for Strategic Studies, Oxford University Press, London, 2001, p. 296.

¹⁰ Ibid.

¹¹ Michael J. Mazar, Don M. Snider, and James A. Blackwell Jr, Desert Storm The Gulf war and what We Learned, Westview Press, Colorado, 1993, p. 98-99.

¹²The Military Balance 2000-2001. Op. Cit. P 36.

economically viable level. The Third World thus has become the target. The former Soviet Union countries, for instance, are scrambling to cash for their advance arms. China too is using arms export as a political leverage in the international community. On top of this, there are also arms produced in Asia Pacific countries (for example North Korea) that contribute to the destabilizing of global arms market, since export controls among Third World arms producers are non-existent. Economic necessity rather than arms policy has taken hold as the main reason for conventional weapons proliferation to take place and is unlikely to change in the immediate future.¹³

There are many scholars who offer various reasons for arms proliferations and acquisitions in the Asia Pacific. Amitav Acharya links those reasons to some interactive, semi-interactive and non Interactive factors.¹⁴ Desmond Ball offered an all encompassing, ten factors contributing to arms acquisitions in the Asia Pacific as follows:¹⁵

1. Economic growth, increasing resources for defence and the requirement of enhanced self-reliance.
2. The drawdown of US presence, capabilities and fears of "the dragon" (Japan and China).

¹³Christopher S. Parker, "New Weapons for Old Problems: Conventional Proliferation and Military Effectiveness in Developing States", International Security, Vol. 23, No. 4 (Spring 1999), pp. 122.

¹⁴Amitav Acharya, "An Arms Race in Post-Cold War Southeast Asia? Prospects For-Control", Pacific Papers, Institute of Southeast Asian Studies, Singapore: ISEAS. 1994, pp. 27-39.

¹⁵Desmond Ball, "Arms and Affluence: Military Acquisitions In The Asia-Pacific Region", International Security, Vol. 18, No. 3 (Winter 1993/94), pp. 81-94.

3. The increasing salience of regional conflict.
4. The requirements for EEZ surveillance and protection.
5. The broadening of regional security concerns.
6. Prestige.
7. Technology acquisition and reverse engineering.
8. Supply-side pressures.
9. Pre-emption of possible international restraints on arms transfer.
10. Action-reaction or arms race dynamics.

While this paper agrees with all the reasons for conventional proliferation to take place in the Asia Pacific (Third World) as forwarded scholars, it tends to agree more with the following reasons:

Let us first assess if the region is likely to remain stable in the economic prospects. The hard facts on the growing economic activity would likely influence the available of appropriate resources to pursue the defence expenditures as long term capabilities in order to determine overall regional prosperity and balance of power in years to come.

Secondly, the increasing presence of the super power naval forces in the Indian Ocean, South China Sea and Pacific Ocean also progressively increased the quality and quantity of nuclear weapon in the region. The implication of this development had been worried about a possible threat or show of force especially if the deter situation erupted into uncontrollable chaos.

Thirdly, the choice of means to prevent a strategic nuclear attack is to review nuclear weapons as highly symbolic normative nature of militaries and their weaponry system by respective countries. It does so by certain countries to Developed and shaped nuclear doctrine as the nature of recent arms control measures and initiatives. Moreover, it became weapons survived in a combination of action- reaction or arms race dynamics.

It is worth observing at the outset that barring the unforeseeable all that would be required to avert strategic imbalance would be political determination and as the requirement to enhance regime security, national security and self-reliance. Each society is sufficiently well endowed with human, financial, and material resources to preserve rough equality without gravely weakening its national well-being in other areas in a better position to achieve scientific excellence, productive capacity, economic growth and superiority. Fortunately, a generalized in ambition against big power use of nuclear weapons against small states is beginning to institutionalised, so the problem is to reverse a deteriorating situation. Although the big powers are largely self-deterred from employing nuclear weapons against smaller states, the smaller states can never be sure of this and need some reassurance if they are not to be cowed by the nuclear power of their larger neighbours.

On the other hand indeed, the developed countries which particularly as supply side (supplier) including super power will pressures and potential for manipulating a significant

degree of strategic on Asia Pacific (Third World) countries by offering packages that are impossible to resist.

Finally, the above scenarios illustrate key aspects of Asia Pacific nuclear contingencies: they are mostly of low probability, but nonetheless are sufficiently important to demand attention and they involve political judgements that are much more complex and controversial. The lesson that nuclear weapon states could attempt threats and coercion even against a country victim of violent instability in its neighbourhood was clear under the pressure of this nuclear nation that the policy will face a fundamental change in this region would need to rely on its own as nuclear deterrent if it was successfully safeguard its own interests.

THE FUTURE CHALLENGES OF NUCLEAR AND CONVENTIONAL WEAPONS PROLIFERATION IN ASIA PACIFIC COUNTRIES

It has been established that the relative amity in the developed countries are not shared by Third World (Asia Pacific) countries which are characterised by their political and economic instabilities. As proliferation of nuclear and conventional weapons continues for varied reason earlier stated, it provides great challenges for the future. These challenges, both of nuclear and conventional weapons proliferation, can be jointly considered as follows:

Firstly unlike the recognised NWS, the Third World countries unrecognised NWS and proliferates states do not have an established structure and doctrine for the nuclear weapons. It will take a long time before assimilation or integration the new weapon

system can take place in the new proliferates. Nuclear accidents and miscalculations, remote as it may be, are likely to happen. No one can safely say that such incidents like the Three Mile Island and Chernobyl will not happen again. The prolongation and the uncertainty of the conflicts in South Asia (that had just been re-ignited) and the Middle East further challenge the rationality of Asia Pacific leaders as to the use of nuclear weapons.¹⁶

The second great challenge to Asia Pacific nuclear weapons proliferation is the question of the commitment and effectiveness of the international arms control and disarmament regime. Presently, there is no international body or organisation that is able to control, monitor and enforce nuclear proliferation. Existing treaties and arrangements are seen discriminatory between NWS and the non-NWS. India openly challenges this discriminatory aspect of the NPT and landed itself as a proliferate state, followed by Pakistan. The US's acknowledgement over India's right to consider for her own security is a bad precedence for other potential proliferate states. The West also lacks concern over Israel's move to become a nuclear proliferate and the creation of a nuclear weapon free zone in the Middle East. Adding to this, the extension of the NPT indefinitely reflected that the international community has lost the leverage against the NWS. It also does not provide incentive or compulsion for NWS to reduce or eliminate their nuclear weapons.

¹⁶Lt Col Mokhtar A. Manaf, SO 1 Research and Training, Defence Intelligence Staff Division, Kuala Lumpur, Interview conducted on 3rd February 2014.

In a way, this may provide encouragement to Asia Pacific countries to become proliferate.¹⁷

The third great challenge among Asia Pacific countries is perhaps the Ballistic Missile Proliferation. This is because missile proliferation is closely related with weapons of-mass destruction (WMD). Although not only nuclear but also chemical weapons (CW) and biological weapons (BW) as they offer a number of advantage over nuclear weapons. While nuclear weapons are expensive, CW and BW provide a much cheaper option to WMD capability. Almost all of the technologies and materials required to produce CW and BW are dual-use in nature thus are widely available for commercial purposes. CW and BW programs are much easier to conceal from international inspectors and are much more secure from air strikes. Most of all, missile is a delivery system of choice of most WMD proliferates. To date, besides the five recognised NWS, there are twenty-eight (most of which are Third World) states that possess ballistic missiles.¹⁸ Refer to Annex A. Of all the countries that possess missile capability, the US's areas of concern are countries in the Korean Peninsula, South Asia, the Middle East and North Africa.¹⁹

Fourthly, the regional institutional capacity in the Asia Pacific is the relatively weak. Therefore, the problems in Africa, South Asia and the Middle East can only be

¹⁷Lt Gen (Rtd) Dato' Mohd Salleh Ismail, Former Director General of Defence Intelligence Staff Division, Kuala Lumpur, Interview conducted on 25th January 2014.

¹⁸Global Missile Proliferation, <http://www.armscontrol.org/ACT/Jan.htm>, Access on 6 February 2014.

¹⁹Kenneth G. Weiss, "The Limits of Diplomacy: Missile Proliferation, Diplomacy and Defence" *Affairs*, Vol. 63, No. 3 (Winter 2001), pp. 111.

resolved by the US or with the United Nation (UN) sponsorship. The ASEAN Regional Forum, for instance, was unable to resolve conflicts in East Timor which require the UN assistance.

Fifth, with respect to conventional weapons proliferation is the permanent feature of Asia Pacific countries of domestic violence and pressures. This violence may overflow to neighbouring countries to cause interstate conflicts.

Sixth, the continued attitude of First and Second World countries to cash on Third World countries out of their economic necessities and to keep their weapon industries viable made Third World countries a deadly dumping ground, exacerbate domestic violence and pressures.

Lastly, the relative economic prosperity and growth in the Third World countries that provide them greater capacity in real terms, (although the percentage of defence expenditure is constant) to procure newer and bigger weapons for force modernisation may entice an arms race among them. There is no sign of slackening among Asia Pacific countries, especially by major regional states like Saudi Arabia and India (and perhaps Taiwan and Singapore). This could lead to a destabilizing cycle of responses although

Parker argued that conventional weapon proliferation does not necessarily constitute a shift in the balance of power, as it demands that they be used efficiently.²⁰

Above are but only some of the challenges of nuclear and conventional weapons proliferations in Third World Countries. This paper has purposely set aside the discussion on the roles of the US and other major powers in these phenomena due to some constraints. However it must be registered that the US has her deterrent force, other major powers and the UN and its tools will play a very important role in controlling (although they might be able to enforce) the proliferation in the Asia Pacific.

Despite all the challenges mentioned above, there is trend for regional government to devote on their respective domestic problems. The Philippines is well engrossed with her internal insurgencies. Indonesia is grappling with fundamental problems of internal stability. The Koreans are focussed on the prospect of their relationship. India and Pakistan are keeping a restraint on an all out war. (Some argued that the current debate between them is only rhetoric). As a whole, it may be correct to say that the situation among Third World countries (especially in the Asia Pacific) isn't too bad after all. There is still hope for stability with signs of increase in dialogues between states.

²⁰Christopher S. Parker, op. cit. p. 119-147.

NORTH KOREAN NUCLEAR AND MISSILE ISSUES

The most threatening security issue in the Asia-Pacific has been North Korea's dogged efforts to develop a nuclear missile arsenal. Pyongyang's move in this direction has created an enduring crisis situation in East Asia. Development of nuclear capabilities even for defence purpose only is likely to embroil North Korea in acrimonious diplomatic exchanges and, perhaps, even military confrontation with the US. Moreover, it could provoke nuclear proliferation to Japan and South Korea, which could, in turn, lead to a destabilising arms race in East Asia.

The US first detected through satellite surveillance the construction of nuclear facilities in Yongbyon about 100 kilo meters north of Pyongyang in early 1991. The US has since requested North Korea to open its nuclear installations to inspection. Pyongyang did comply with US demand by allowing the International Atomic Energy Agency (IAEA) to conduct six inspections of its nuclear facilities between May 1992 and February 1993. But conflicting views from both sides about the results of the inspections and their intransigence has suddenly pushed tensions in the Korean Peninsula to a new pitch of intensity. Tensions nevertheless subsided between April 1993 and March 1994 during which North Korea, in its two high-level talks with the US, agreed to let the IAEA to conduct the 7th inspection of its nuclear facilities.²¹

²¹Clifton W. Sherrill, "Comparative Strategy", The Future of Strategic Nuclear Forces, for Strategic Studies, University of Reading, September 2001, pp. 259.

The North Korea nuclear crisis further escalated in early May 1994 when Pyongyang removed the fuel rods from its reactor. In June 1994, the IAEA reacted by announcing the termination of technical aid to North Korea. North Korea responded by announcing its decision to leave the IAEA. The US proposed sanctions on North Korea. Pyongyang reacted by pointing out that sanctions were tantamount to a declaration of war. These moves and counter moves fuelled the nuclear crisis almost to a breaking point. But fortunately for the timely intervention of President Jimmy Carter, the two sides eventually agreed to maintain contact in place of confrontation.

The US was adamant on the issue of North Korea nuclear crisis because, in its view, Pyongyang's development of nuclear weapons had added a fresh element of threat and instability in Northeast Asia. The US had the previous persuaded Japan and Taiwan to abandon their nuclear weapons development programmes and pressured India, Pakistan and Israel to decelerate their nuclear weapons development programmes and India, Pakistan and Israel would further step up their nuclear efforts if the US again conceded over the North Korean nuclear issue. This would pose a severe challenge to US global leadership.²²

North Korea had maintained an ambiguous stance on the nuclear issue. The calculations behind its strategy were to use nuclear issue as a bargaining chip with the US to secure the latter's diplomatic recognition and to remove US trade embargo imposed since the fifties.

²² Ibid.

Moreover, Pyongyang intended to use the nuclear dispute with the US to whip up a sense of crisis about external threat so as to defuse internal pressure resulting from economic failure.

Meanwhile, both the US and North Korea were striving to reach a position through negotiations acceptable to both parties. They eventually signed on 21st October 1994, a landmark Geneva Accord known as the Basic Framework Agreement (BFA). In the accord, the US agreed to supply Pyongyang two light-water reactors, deliver to North Korea annually 500,000 tons of heavy oil as alternative energy and insure North Korea against US nuclear attacks. Pyongyang, on the other hand, agreed to freeze, halt or eventually dismantle all its graphite-moderated reactors in operation and under construction, remain a party to the NPT, comply with IAEA safeguards and take steps to implement to North-South Joint Declaration on the Demilitarisation of the Korean Peninsula.

But notwithstanding the Geneva Accord the US pressed on with its monitoring of North Korea's nuclear programme. In the ensuing years, further evidence surfaced to suggest that North Korea might have underground nuclear weapons development facility at Kumchangri. The US started another round of negotiations with North Korea. In March 1999, an accord was reached in New York to allow US officials access to an underground bunker at Kumchangri in May 1999.

In recent years, the US was also disturbed by the development of North Korea's missile capability, particularly after the test-flight on 31st August 1998 of a Taepo Dong II

intercontinental ballistic missile with a range of 5,500-10,000 km. In fact, the US used the Taepo Dong II missile test as pretext to co-operate with Japan in developing the Theatre Missile Defence (TMD)²³ system. Since April 1996, the US has had several rounds of abortive missile talks with North Korea, the last being held in Kuala Lumpur in July 2000. These talks mainly focused on North Korea's transfers of missile technology to Pakistan, Iran and Iraq. The US insistently demanded that North Korea halt export of missile and missile technology to the so-called rogue states. Pyongyang, however, contended that its missile deals with these Muslim states were politically and economically justifiable and demanded from the US an annual payment of US \$1 billion as payment for a freeze on its missile technology exports. Washington treated this as blackmail and had flatly rejected the condition.

THE TMD AND NMD

Meanwhile, the on-going debate in the US about Theatre Missile Defence (TMD) and National Missile Defence (NMD) has intensified concern in the Asia-Pacific about the issue of strategic and tactical nuclear missiles. Washington intends to use the NMD to counter long-range and intercontinental missile that can reach US mainland and the TMD to deal with short, medium and intermediate range missile that can threaten US overseas troop deployments, bases and military installations. The near-term objective of the US TMD project is to develop a limited theatre ballistic missile defence system for low altitude defence with PAC-3, upgraded PAC-2

²³Colin S. Gray, "Nuclear Weapons and Missile Defence", East Asian Studies, Vol. 37, Jan-Mac 2001, pp.231.

and sea-based 2/VA missile. Its long-term objective is to develop a theatre high altitude missile defence system with an interception altitude of 150 km and an area of defence 20 times that of the PAC. The sea-based high-altitude defence system is to use 2/VA ship-to-air missile with the greatest interception altitude of over 2000 km. The area of defence of these two missile systems far exceeds that of the TMD. These two missile systems thus have the NMD capability and could be used to protect US mainland against the threat of ballistic missiles.

The US has completed construction of a complete set of early warning and defence systems against missiles exceeding 3,000 km in range. But recently, in appreciation of the difficulties in dealing with attacks by short and medium-range ballistic missiles, the Clinton Administration began to shift the focus of defence to the TMD, mainly in the Asia Pacific. One main reason for Washington to give priority to Northeast Asia for the development of TMD is to protect US troops in Japan, and South Korea and US military facilities in East Asia, as well as to provide Japan, South Korea and Taiwan some semblance of security guarantee.

Japan has decided on full participation in the US TMD system in East Asia after the test-flight of a North Korean long-range strategic missile in August 1998. Technologically, Japan is mature enough to participate in the development of this new defence system. Japan has launched several satellites and plans to launch another 4 military reconnaissance satellites before 2002. It has also acquired E-2C early warning aircraft, ground radar system, the advanced US-made Aegis

air defence system, PAC-2 and PAC-3 for air, ground and sea reconnaissance and early warning and for missile air defence.²⁴

In terms of regional security, the real threat is that Japan would almost certainly use US advance technology to speed up the development of tactical ballistic missile. Japan first tested the TR-1A rocket in September 1991, which, according to experts, could be converted into mobile tactical missiles. Moreover, Japan's H-2 rocket can deliver 2-ton warhead to targets about 5,500 km away.

Yet the most ominous impact of the US proposed TMD system on regional security and international strategic order is the possible participation of Taiwan in the development of this system. Taiwan has repeatedly sought to procure US Aegis air defence system and PAC-3. The US Congress has already directed the Pentagon to submit a feasibility report on the inclusion of Taiwan in the TMD system. In any event, Taiwan's anti-tactical missile capability would be significantly upgraded after the year 2000. By then, Taiwan would also have developed early warning satellite and, perhaps, deployed long-range (1000 km) early warning radar to provide early warning information to the anti-tactical missile system. By then Taiwan would have developed the Sky-bow-3 surface-to-air missile far superior to the existing systems in anti-missile

²⁴ Ibid.

capability and, perhaps, participated in US Theatre High Altitude Area Defence system programme.²⁵

MUTUAL NON-TARGETING OF STRATEGIC NUCLEAR MISSILES

Apart from repeated technical failures, President Bill Clinton's recent decision to let his successor to handle the issue of NMD and TMD may be influenced by an accord on mutual non-targeting of strategic nuclear missiles the US had concluded with China during his June-July 1998 summit with President Jiang Zemin. Originally, the US and China did not share the same strategic thinking and aims in the area of nuclear security protection. As early as 1996, the Pentagon had indicated to PRC leaders US interest in concluding an accord on de-targeting intercontinental ballistic missile on each other. Beijing, however, insisted that the accord should be preceded by an agreement on mutual no first use of nuclear weapons. This was rejected by the US and shortly thereafter Bill Clinton promulgated a new Presidential Decision Directive (PDD) which allowed nuclear strikes to be extended to China in the event of war and more nuclear missile to target on China. It is thus obvious that the foremost objective of US nuclear strategy and security guarantee is halting mutual targeting of long-range missiles. But the US has never abandoned the first use of nuclear weapons because it firmly believes in the need of tactical nuclear weapons to protect US troops overseas against biochemical and bacteriological attacks

²⁵ Ibid.

by dangerous states.²⁶ On the other hand, the basic starting point of the PRC's nuclear strategy is to maintain minimal second strike capability. No first use of nuclear weapons has thus become the topmost objective of its nuclear security strategy.

The accord on halting mutual nuclear targeting has opened the door for Sino-US nuclear security dialogue and at the same time will give a boost to more Sino-US military exchanges. The US seems to have understood the reason why, at the eleventh hour, China has agreed to an accord on the mutual non-targeting of strategic nuclear missiles. Hence, the US has given the undertaking to further discuss with China the issue of no first-use of nuclear weapons in their nuclear security dialogue. Both the US and China are hoping to co-operate in orchestrating the future international nuclear disarmament talks.

Sino-US accord on non-mutual targeting of strategic nuclear missile has an important impact on regional security. This has, as a matter of principle and good faith, driven President Clinton to shelve decision on the deployment of NMD and TMD.²⁷ It has also attracted immense Japanese interest and shall dominate the agenda of future Sino-Japanese security dialogue. Japan is acutely concerned that US bases on its soil would turn the country into an attractive target for China missile attack.

²⁶Charles Glasser, 'National Missile Defence Future of US Nuclear Weapon Policy', Harvard University International Security Journal, Vol.26, Summer 2001, pp. 40.

²⁷ Ibid.

CHAPTER 5

"We have had our last change. If we do not devise some greater and more equitable system, Armageddon will be at our door".

- General Douglas MacArthur

SECURITY IMPLICATIONS FOR THE REGION

Recent developments in the Asia Pacific indicate that a fresh round of nuclear arms race has started in the region. Although China has for years advocated nuclear disarmament, its nuclear and missile tests in 1996 are clear evidence of its determined efforts to upgrade and diversify its nuclear arsenal and enhance the offensive and penetration capacities of its strategic weapons. In 13th May 1998, both India and Pakistan detonated their nuclear they cannot be considered as credible nuclear powers until they have weapons their nuclear devices. But their nuclear tests suggest that they are potentially capable of upsetting the existing regional strategic balance. US moves to develop the National Missile Defence (NMD) and Theatre Missile Defence (TMD) systems reflect US growing concern about the security challenges from emerging regional and global powers.¹ But both its allies and major power competitors suspect that these US moves are largely intended to preserve its undisputed these military superiority and to influence international developments. The security implications of these developments are obvious.

First, China's nuclear and missile tests represent a vertical proliferation of weapons of mass destruction for they are intended as a qualitative upgrading of its nuclear weapons and

¹Kristin S. Kolet, "Asymmetric Threats to the US", International Journal of National Institute for Strategic Studies, London, Vol.20 1982, pp. 76.

missile systems. The Kosovo war has dawned upon China that it might have to use nuclear weapons to ward off foreign intervention in its domestic affairs. China's nuclear capabilities have demonstrated to countries in the region nuclear weapons are a cheap, yet reliable, form of security strength and an important vehicle for the pursuit of regional influence.

Second, further sophistication of China's nuclear weapons would intensify arms competition in the Asia Pacific. Basically, China does not think that India is a competitor. Its main strategic consideration is how to deal with the US. But India has made it known that its nuclear armaments are partly intended to compete with and to curb China. This, in turn, will force Pakistan to step up efforts at nuclear arms development so as to maintain the strategic status quo in South Asia.

Third, Indo-Pakistan nuclear arms would affect major nuclear powers and threshold nuclear states. Although the US under the Bush Administration has relented pressure on India to halt its nuclear weapons programme, the Clinton Administration is determined to ensure that India would not provoke any nuclear confrontation with either Pakistan or China.² Beijing would not accept the development of India's nuclear power and would probably seek to restore the power balance in South Asia by stepping up nuclear co-operation with Pakistan. Japan, the two Koreas and Taiwan, which have done considerable research and development work on nuclear weapons, might opt for nuclear deterrence as the main component of their defence planning.

² Ibid.

Some of the ASEAN states, notably Vietnam and Indonesia, which cannot afford the huge cost of conventional arms build-up, may also be tempted to opt for nuclear arms as a more viable defence for their security interests.

Fourth, the NMD and TMD systems would speed up nuclear weapons proliferation. The us and Japan have consistently stressed that TMD is a defensive system. But experts argue that TMD is not purely defensive and is a component of the new offence-defence system. The adverse implications of the TMD system are:

1. It would turn the START treaty into an empty document and set a bad precedent for executing international law.
2. It would have a great impact on maintaining global strategic balance and stability.
3. It would provoke a new round of outer space arms race and turn the outer space into a new military base and battle ground.

Fifth, the NMD and TMD systems could force China to hasten the development of its missile and nuclear capabilities to a level that would enable it to penetrate these systems.³ China has the finances and the resources to deploy nuclear weapons on a massive scale and there are already indications that Beijing is now speeding up the development of cruise missile and planning to expand its strategic nuclear missile strength tenfold.

³Dan Smith, Non-Nuclear Military Options, Bradford University, Peace Study Paper 6, 1982.

Sixth, the NMD and TMD systems have also provoked strong adverse reactions from Moscow. President Vladimir Putin has already clearly pointed out that the US NMD project would erode the existing nuclear balance and spark a new arms race which would impair the deterrent function of Russia's nuclear weapons. Russia with its current economic woes may not have the money to support massive nuclear weapons development. But it could counter the US by stepping up military cooperation with China and by re-deploying its short-range tactical missiles on its borders and converting all its inter-continental ballistic missiles into multiple warhead nuclear missiles.

Damage to Regional Security

Military Perspective. Almost all non-nuclear countries not only in Asia Pacific but also throughout the world regard a cessation of the nuclear arms race. They want to halt the testing, production and further development of nuclear weapons. The fact is that the vast disparity in the level of conventional force between non-nuclear weapons states (NNWS) and of those states possessing nuclear weapons in makes it practically impossible for NNWS to be able to resist intervention-conventional or nuclear.⁴ Although the capability of having a nuclear weapon does not imply that it will be used. Nevertheless, it does imply that it may be used. As such NNWS are fearful by the very presence of nuclear weapon and their deployment in the region. It also includes the nuclear fall-out in the eventuality of a nuclear exchange between India and China-

⁴Norbet Hannig, "The Defence with Conventional Weapons", International Defence Review, November 1981.

India and Pakistan, or China and Taiwan, and China and Japan. Even if the nuclear war is limited to India and Pakistan or with present development of nuclear programmes in Japan and Taiwan or either in Myanmar; the physical consequences of the nuclear radiation could be equally disastrous for all. Moreover, there is a possibility that nuclear weapons might be used or accidentally in the course of a conventional war. States of South Asia (SA) have adversarial relationship with India nevertheless they cannot be characterized as volatile as that of Indo-Pakistan relationship.

Non-Military Perspective. There is an array of serious problems confronting in the region to ensure the well being of the peoples. On the country, acute intra-state and inter-state conflicts only drained the meagre resources for defence build-up but have negative impacts on the capabilities of the respective governments creating multifarious non-military threats to the organic survival of its people. Such threats arise from the lack of preservation of political system, economic and political under- development, food and energy shortage, environmental degradation and resource constraints.⁵ These threats are interrelated.

Nuclear Test Ban Treaties. Though all nuclear capable states made flying declaration that they will not conduct anymore nuclear test, the CTBT is yet to come into force. The basic obligations of CTBT clearly expresses that each signatories agrees not to carry out any nuclear weapon test. But there is also seen a double standard in that, the USA has attached a package of safeguards to ensure that its nuclear weapons remain ready to use forever. This has naturally

⁵ Ibid.

complicated the process of non-proliferation of nuclear weapons. Basing on issues other countries had their own interpretation. Germany, for instance declared that nothing in the treaty could be interpreted to prevent the research into and the development of controlled thermonuclear fusion.

Economic And Environmental Impact

Indeed, both economics and environment have become integrated with the security debate as part of the new multi-dimensional approach to security, though traditionally both have been regarded as separate elements of national security, dealt with on parallel tracks.⁶ The potential destructiveness of a nuclear war in SA is simply unacceptable. The enormous loss of human lives, its devastating effect on economy and environment would be all encompassing simply due to geographical proximity of Asia Pacific nations. As such, economic and environmental concerns are urgent imperatives for the security needs of the region as a whole.

Environmental Degradation and Resource Constraints.

It has been predicted that most conflicts, both social and inter-state, would arise due to environmental degradation and resource constraints, both renewable and non-renewable. These issues can have two-fold impacts: first, environmental issues enhance inter-state conflicts, and second, it can have devastating on the economy and policy of the nation. Booming population

⁶ Ibid.

growth in Asia Pacific causes scarcity of land and resources having the potential to cause unprecedented social and inter-state conflicts. Migration, refugee and sharing of water resources are already causing intra-state and inter-state conflicts. The effect of increasing flood and climate change world also be no less prophetic. The potential of the huge population needs to be harnessed by investing in human development i.e., allocating more money for education and health. But that finance would not be forthcoming unless there is a process towards easing out tension on the outstanding conflicts. Strategic analysts therefore can ill-afford to remain indifferent to what predicament may await the future generations.

Physical Fallout of Nuclearisation

Evaluation of the risk of potential radiation hazards from fallout involves much the same considerations, as do other risks to large population. In the case of fallout, the potential risk is global and involves many uncertainties regarding radiation doses and effects. Human experience with radioactive fallout has been substantial and well documented. The aftermath of Hiroshima and Nagasaki, and the Chernobyl nuclear incidents has given an impact on the neighbouring areas. Even its affected the workers of nuclear power plants, so called atom for peace use in different parts of the world, as frequently flushed out in the world press, it should be enough evidence of plausible danger from nuclear fallout.

Improving the Security Situation

Confidence-building measures can contribute to the reduction of tension. But effective and durable non-proliferation arrangements depend on an improvement in the security situation in the region. As a practical matter, they are likely to be most effective if they go hand in hand with a solution of the political causes of insecurity. This is where the political leadership shall have to play a very important role who would be required to show vision and maturity.

Hence the practical point of departure in the region for a non-proliferation outcome must be a political solution between the nuclear states that arrests the pressure to become committed to nuclear weapons programs and deployments. Other states can be helpful in promoting ideas and movement in that direction, and in actions to make such an outcome maximally auspicious. The first steps may not necessarily be bilateral, but initiated through third parties, and later assume a bilateral posture.

The resumption of dialogue would be the first step towards improving the security situation in the region. The initial purpose would be to remove the basic perceptions of imminent threat from both sides, with the ultimate aim of achieving a security climate in the region which would not require nuclear weapons. This requires dedication to security by political as well as

military means, and by political means that reduce the perceived need for military defence to unusual rather than ordinary circumstances.

Harnessing Of Public Opinion

Today there is a general consensus all over the world against nuclear weapons. There is much pressure on the nuclear weapon states to actually step up their efforts to reduce their nuclear arsenals. While the anti-nuclear lobby in the West has grown primarily through the uncertainty and destructive potential that is associated with it, the East looks at it as a mystifying power able to solve all its problems.

The general jubilation in India over the nuclear tests, and the massive public outcry in Pakistan to follow suit, was a typical manifestation of the kind of ignorance that exists in these states regarding nuclear weapons. This wrong perception has grown primarily due to the ignorance of the role that nuclear weapons have played during their short life span. Nuclear weapons alone cannot ensure the survival of a state, after all the Russia nuclear stockpile could not prevent its disintegration, a point that has to be borne in mind by the leaders of these Asia Pacific countries. A positive effort on part of the West to educate the masses in the region through the media (which is controlled by them) would go a long way in making the common man realize how futile would a nuclear arms race in this region be.

CHAPTER 6

"One must be wary of overdrawn - and of overdrawing - estimates of the significance of strategic disparity. But significant disparities would matter at least at the margin"

- John H. Barton

CONCLUSION

Proliferation of nuclear and conventional weapons in the Asia Pacific countries is inevitable for varied reasons. Nuclear weapons proliferation continues to persist among states as they find some political, military and economic incentives to do so, and the relevance for the weapon's role to provide security. However, the proliferation rate is very slow as some states are deterred by the need to be able to field a full-fledged force and the burdening financial and security costs of going nuclear. Few states have found better reasons not to develop nuclear weapons despite their economic and technical ability to do so and rely their security upon the US strategic deterrent force.

The Asia Pacific has gradually become a theatre of nuclear arms race as a result of China's moves to improve the sophistication of their strategic and tactical nuclear missiles, Indo-Pakistan efforts to weapons their nuclear research and US attempt to install a TMD System in East Asia. But in this nuclear arms race, political calculations far outweigh military considerations. Today, no government in the world will ever entertain the thought of a nuclear

solution for inter-state or international conflicts although the US, Russia and China have occasionally threatened to use nuclear weapons against their opponents.

What is most central in the current debate on the nuclear issue in the Asia Pacific concerns US intention to establish a NMD System in Alaska and a TMD System in East Asia. Both China and Russia are upset by the US plans. China asserts that development of the NMD and TMD systems could impair the stable structure of Sino-US relations erected since 1996. Although Beijing accuses the US of trying to use the NMD and TMD to orchestrate the new world order and to prevent China developing the military and economic strength capable of challenging the US in the Pacific region in the future, what it could merely do now is to upgrade its offensive strategic missiles. It has neither the technology nor the finances to develop its own anti-missile system. Nor could it fundamentally change or replace the security of Northeast and Southeast Asia on the US.

To Moscow, the TMD and NMD systems are similar to the Star Wars of the Cold War era and could threaten Russia's national security and Russia is also not capable of peace and stability in the Asia Pacific building an effective anti-missile network. But it could focus on developing more advanced missiles capable of breaking through the US anti-missile system. So far, President Vladimir Putin has issued an executive order to re-equip Russian troops with TU-160 long-range strategic bombers and approved Russia's new military doctrine on its right of

using nuclear weapons to defend its independence and sovereignty. Eventually the NMD deployment is likely to go ahead in order to stabilised and keep balance due to as follows:

1. Development of the NMD system meets US global strategic requirements. Washington believes that many countries would eventually catch up with and perhaps even overtake the US in the development of conventional and nuclear arms. Only the NMD and TMD systems would enable the US to maintain its status as the sole superpower.
2. The decision making process for the NMD is very much influenced by arms manufacturers, the military, the hawks in Washington and the majority group in the US Congress. Also the US government has already signed contracts with many arms manufacturers on the NMD project.

Unlike the nuclear proliferation, conventional weapons proliferation will continue at a relatively high rate in the region. For as long as the attitude of US, Russia and Europe First and Second countries remain to cash on the economies of Third World countries, proliferation of conventional weapons will go on. With the absence of effective measure to reduce or limit arms production, countries will continue to obtain increasingly bigger and more complex arsenals that can upset the regional balance or change the status quo.

Challenges attributed by the nuclear and conventional weapons proliferation to the region are many and un-exhaustive. However, it is thought that there is still some light for peace and instability as the Asia Pacific countries began to assimilate the weapons and arsenals and

establish structures and doctrines. The continued and important roles played by the US, other major powers and the UN (and its tools) will further ensure that peace and stability in Asia Pacific countries is maintained. This paper would end in a very optimistic note that the proliferation of both nuclear and conventional weapons in the Asia Pacific is not at an alarming state. The challenges are many, but none are impossible to be overcome. Provided there is will. The existential threat from these nuclear weapon would, therefore, continue for an indefinite period into the future.

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**EXECUTIVE SUMMARY OF RESEARCH PAPER ON
NUCLEAR PROLIFERATION IN THE ASIA PACIFIC AND ITS SECURITY
IMPLICATION FOR THE REGION**

INTRODUCTION

Asia Pacific always been the focal point for the super power or major powers because of its geo-strategic location. One of the greatest dilemmas of man conquering science is the amazing destructive power that it has bestowed upon him, that would allow him to destroy the world many times around. The power of the atom is one that is likely to be greatest threats to man's existence on this planet. There were five nuclear states in proliferation scenario before which have increased to 20 as predicted. What was motive of this detonation and how is the proliferation scenario in the Asia Pacific? An in depth study has been carried out regarding this vis-a-vis the world. Efforts are made to find out detail impact of this proliferation in the aspects of politic, military, economy and environment. Therefore, the study of nuclear proliferation in Asia Pacific became very relevant and essential.

OBJECTIVE OF RESEARCH

The main objective of research is to identify the implication of nuclear proliferations on regional security in general and Asia Pacific in particular of the present development. A through understanding of tile geo-strategic scene and nuclear proliferation scenario of the world is a pre requisite to identifying the areas which require detail assessment. This will focus on the present day trend. An understanding the motive and world reaction of nuclear blast by the super powers and major powers also speak proliferation concerned by the world community. This will give another intermediate objective to derive some recommendations.

WHY

Many scholars had offered suggestions for the proliferation of weapons, particularly nuclear, to take place. Some suggested that unstable regional security, international prestige, option for bargain aggressive political intention, to form an alliance and economics. The other reasons namely great powers always counter the weapons of other great powers, uncertainty of protection by ally, no Nuclear Weapon State (NWS) allies, fear of enemy's conventional strength, find relatively cheaper and safer to running conventional arms race, for offensive purpose and to enhance international standing.

Other than those mentioned above, the more valid reasons for Asia Pacific countries to become nuclear proliferates are due to powerful combination of political military and economic incentives. India and Pakistan, for instance, finds political and military reasons to acquire nuclear capabilities. India wanted to check on Pakistan and China. On the other hand, India's move to acquire nuclear capability enticed Pakistan to do the same. Similarly is Israel. She finds political and military excuses to acquire nuclear capability amidst the troubled Arab states. North Korea has all political, military and economic incentives to develop nuclear weapons. Besides holding the US at ransom politically, checking on South Korea military threat, she had also gained economically from the Light-Water Reactors and heavy fuel oil annual shipments until the US pledged reactor is completed.

WHAT

There are many scholars who offer various reasons for arms proliferations and acquisitions in the Asia Pacific. Ten factors contributing to arms acquisitions in the Asia Pacific as follows:

1. Economic growth, increasing resources for defence and the requirement of enhanced self-reliance.

2. The drawdown of US presence, capabilities and fears of "the dragon" (Japan and China).
3. The increasing salience of regional conflict.
4. The requirements for Economic Exclusive Zone (EEZ) surveillance and protection.
5. The broadening of regional security concerns.
6. Prestige.
7. Technology acquisition and reverse engineering.
8. Supply-side pressures.
9. Pre-emption of possible international restraints on arms transfer.
10. Action-reaction or arms race dynamics.

While this paper agrees with all the reasons for conventional proliferation to take place in the Asia Pacific (Third World) as forwarded scholars, it tends to agree more with the following reasons:

1. Let us first assess if the region is likely to remain stable in the economic prospects. The hard facts on the growing economic activity would likely influence the available of appropriate resources to pursue the defence expenditures as long term capabilities in order to determine overall regional prosperity and balance of power in years to come.
2. The increasing presence of the super power naval forces in the Indian Ocean, South China Sea and Pacific Ocean also progressively increased the quality and quantity of nuclear weapon in the region. The implication of this development had been worried about a possible threat or show of force especially if the deter situation erupted into uncontrollable chaos.

3. The choice of means to prevent a strategic nuclear attack is to review nuclear weapons as highly symbolic normative nature of militaries and their weaponry system by respective countries. It does so by certain countries to Developed and shaped nuclear doctrine as the nature of recent arms control measures and initiatives. Moreover, it became weapons survived in a combination of action- reaction or arms race dynamics. It is worth observing at the outset that barring the unforeseeable all that would be required to avert strategic imbalance would be political determination and as the requirement to enhance regime security, national security and self-reliance. Each society is sufficiently well endowed with human, financial, and material resources to preserve rough equality without gravely weakening its national well-being in other areas in a better position to achieve scientific excellence, productive capacity, economic growth and superiority. Fortunately, a generalized in ambition against big power use of nuclear weapons against small states is beginning to institutionalised, so the problem is to reverse a deteriorating situation. Although the big powers are largely self-deterred from employing nuclear weapons against smaller states, the smaller states can never be sure of this and need some reassurance if they are not to be cowed by the nuclear power of their larger neighbours. On the other hand indeed, the developed countries which particularly as supply side (supplier) including super power will pressures and potential for manipulating a significant degree of strategic on Asia Pacific (Third World) countries by offering packages that are impossible to resist.

4. The above scenarios illustrate key aspects of Asia Pacific nuclear contingencies: they are mostly of low probability, but nonetheless are sufficiently important to demand attention and they involve political judgements that are much more complex and controversial. The lesson that nuclear weapon states could attempt threats and coercion even against a country victim of violent instability in its neighbourhood was clear under the pressure of this nuclear nation that the policy will face a fundamental change in this region would need to rely on its own as nuclear deterrent if it was successfully safeguard its own interests.

HOW

The security implications of these developments are obvious as follows:

1. China's nuclear and missile tests represent a vertical proliferation of weapons of mass destruction for they are intended as a qualitative upgrading of its nuclear weapons and missile systems. The Kosovo war has dawned upon China that it might have to use nuclear weapons to ward off foreign intervention in its domestic affairs. China's nuclear capabilities have demonstrated to countries in the region nuclear weapons are a cheap, yet reliable, form of security strength and an important vehicle for the pursuit of regional influence.
2. Further sophistication of China's nuclear weapons would intensify arms competition in the Asia Pacific. Basically, China does not think that India is a competitor. Its main strategic consideration is how to deal with the US. But India has made it known that its nuclear armaments are partly intended to compete with and to curb China. This, in turn, will force Pakistan to step up efforts at nuclear arms development so as to maintain the strategic status quo in South Asia.
3. Indo-Pakistan nuclear arms would affect major nuclear powers and threshold nuclear states. Although the US under the Bush Administration has relented pressure on India to halt its nuclear weapons programme, the Clinton Administration is determined to ensure that India would not provoke any nuclear confrontation with either Pakistan or China. Beijing would not accept the development of India's nuclear power and would probably seek to restore the power balance in South Asia by stepping up nuclear co-operation with Pakistan. Japan, the two Koreas and Taiwan, which have done considerable research and development work on nuclear weapons, might opt for nuclear deterrence as the main component of their defence planning. Some of the ASEAN states, notably Vietnam and Indonesia, which cannot afford the huge cost of conventional arms build-up, may also be tempted to opt for nuclear arms as a more viable defence for their security interests.

4. The Nuclear Missile Defence (NMD) and Theatre Missile Defence (TMD) systems would speed up nuclear weapons proliferation. The US and Japan have consistently stressed that TMD is a defensive system. But experts argue that TMD is not purely defensive and is a component of the new offence-defence system.

5. The NMD and TMD systems could force China to hasten the development of its missile and nuclear capabilities to a level that would enable it to penetrate these systems. China has the finances and the resources to deploy nuclear weapons on a massive scale and there are already indications that Beijing is now speeding up the development of cruise missile and planning to expand its strategic nuclear missile strength tenfold.

6. The NMD and TMD systems have also provoked strong adverse reactions from Moscow. President Vladimir Putin has already clearly pointed out that the US NMD project would erode the existing nuclear balance and spark a new arms race which would impair the deterrent function of Russia's nuclear weapons. Russia with its current economic woes may not have the money to support massive nuclear weapons development. But it could counter the US by stepping up military cooperation with China and by re-deploying its short-range tactical missiles on its borders and converting all its inter-continental ballistic missiles into multiple warhead nuclear missiles.

RESULTS AND CONCLUSIONS

Damage to Regional Security

Military Perspective. Almost all non-nuclear countries not only in Asia Pacific but also throughout the world regard a cessation of the nuclear arms race. They want to halt the testing, production and further development of nuclear weapons. The fact is that the vast disparity in the level of conventional force between non-nuclear weapons states Near Nuclear Weapon States (NNWS) and of those states possessing nuclear weapons in makes it practically impossible for NNWS to be able to resist intervention-conventional or nuclear.

Although the capability of having a nuclear weapon does not imply that it will be used. Nevertheless, it does imply that it may be used. As such NNWS are fearful by the very presence of nuclear weapon and their deployment in the region. It also includes the nuclear fall-out in the eventuality of a nuclear exchange between India and China- India and Pakistan, or China and Taiwan, and China and Japan. Even if the nuclear war is limited to India and Pakistan or with present development of nuclear programmes in Japan and Taiwan or either in Myanmar; the physical consequences of the nuclear radiation could be equally disastrous for all. Moreover, there is a possibility that nuclear weapons might be used or accidentally in the course of a conventional war. States of South Asia (SA) have adversarial relationship with India nevertheless they cannot be characterized as volatile as that of Indo-Pakistan relationship. Similarly the security problems also applied to the development of nuclear arms in Korean Peninsular which creates tension between North Korea and South Korea.

Non-Military Perspective. There is an array of serious problems confronting in the region to ensure the well being of the peoples. On the country, acute intra-state and inter-state conflicts only drained the meagre resources for defence build-up but have negative impacts on the capabilities of the respective governments creating multifarious non-military threats to the organic survival of its people. Such threats arise from the lack of preservation of political system, economic and political under- development, food and energy shortage, environmental degradation and resource constraints. These threats are interrelated.

Nuclear Test Ban Treaties. Though all nuclear capable states made flying declaration that they will not conduct anymore nuclear test, the Comprehensive Test Ban Treaty (CTBT) is yet to come into force. The basic obligations of CTBT clearly expresses that each signatories agrees not to carry out any nuclear weapon test. But there is also seen a double standard in that, the US has attached a package of safeguards to ensure that its nuclear weapons remain ready to use forever. This has naturally complicated the process of non-proliferation of nuclear weapons. Basing on issues other countries had their own

interpretation. Germany, for instance declared that nothing in the treaty could be interpreted to prevent the research into and the development of controlled thermonuclear fusion.

Economic And Environmental Impact

Indeed, both economics and environment have become integrated with the security debate as part of the new multi-dimensional approach to security, though traditionally both have been regarded as separate elements of national security, dealt with on parallel tracks. The potential destructiveness of a nuclear war in SA is simply unacceptable. The enormous loss of human lives, its devastating effect on economy and environment would be all encompassing simply due to geographical proximity of Asia Pacific nations. As such, economic and environmental concerns are urgent imperatives for the security needs of the region as a whole.

Environmental Degradation and Resource Constraints.

It has been predicted that most conflicts, both social and inter-state, would arise due to environmental degradation and resource constraints, both renewable and non-renewable. These issues can have two-fold impacts: first, environmental issues enhance inter-state conflicts, and second, it can have devastating effects on the economy and policy of the nation. Booming population growth in Asia Pacific causes scarcity of land and resources having the potential to cause unprecedented social and inter-state conflicts. Migration, refugee and sharing of water resources are already causing intra-state and inter-state conflicts. The effect of increasing flood and climate change worldwide also be no less prophetic. The potential of the huge population needs to be harnessed by investing in human development i.e., allocating more money for education and health. But that finance would not be forthcoming unless there is a process towards easing out tension on the outstanding conflicts. Strategic analysts therefore can ill-afford to remain indifferent to what predicament may await the future generations.

Physical Fallout of Nuclearisation

Evaluation of the risk of potential radiation hazards from fallout involves much the same considerations, as do other risks to large population. In the case of fallout, the potential risk is global and involves many uncertainties regarding radiation doses and effects. Human experience with radioactive fallout has been substantial and well documented. The aftermath of Hiroshima and Nagasaki, and the Chernobyl nuclear incidents has given an impact on the neighbouring areas. Even its affected the workers of nuclear power plants, so called atom for peace use in different parts of the world, as frequently flushed out in the world press, it should be enough evidence of plausible danger from nuclear fallout.

Improving the Security Situation

Confidence-building measures can contribute to the reduction of tension. But effective and durable non-proliferation arrangements depend on an improvement in the security situation in the region. As a practical matter, they are likely to be most effective if they go hand in hand with a solution of the political causes of insecurity. This is where the political leadership shall have to play a very important role who would be required to show vision and maturity.

Hence the practical point of departure in the region for a non-proliferation outcome must be a political solution between the nuclear states that arrests the pressure to become committed to nuclear weapons programs and deployments. Other states can be helpful in promoting ideas and movement in that direction, and in actions to make such an outcome maximally auspicious. The first steps may not necessarily be bilateral, but initiated through third parties, and later assume a bilateral posture.

The resumption of dialogue would be the first step towards improving the security situation in the region. The initial purpose would be to remove the basic perceptions of

imminent threat from both sides, with the ultimate aim of achieving a security climate in the region which would not require nuclear weapons. This requires dedication to security by political as well as military means, and by political means that reduce the perceived need for military defence to unusual rather than ordinary circumstances.

Harnessing Of Public Opinion

Today there is a general consensus all over the world against nuclear weapons. There is much pressure on the nuclear weapon states to actually step up their efforts to reduce their nuclear arsenals. While the anti-nuclear lobby in the West has grown primarily through the uncertainty and destructive potential that is associated with it, the East looks at it as a mystifying power able to solve all its problems.

The general jubilation in India over the nuclear tests, and the massive public outcry in Pakistan to follow suit, was a typical manifestation of the kind of ignorance that exists in these states regarding nuclear weapons. This wrong perception has grown primarily due to the ignorance of the role that nuclear weapons have played during their short life span. Nuclear weapons alone cannot ensure the survival of a state, after all the Russia nuclear stockpile could not prevent its disintegration, a point that has to be borne in mind by the leaders of these Asia Pacific countries. A positive effort on part of the West to educate the masses in the region through the media (which is controlled by them) would go a long way in making the common man realize how futile would a nuclear arms race in this region be.

RECOMMENDATIONS

Challenges attributed by the nuclear and conventional weapons proliferation to the region are many and un-exhaustive:

1. There is still some light for peace and instability as the Asia Pacific countries began to assimilate the weapons and arsenals and establish structures and doctrines.
2. The continued and important roles played by the US, other major powers and the UN (and its tools) will further ensure that peace and stability in Asia Pacific countries is maintained.
3. The proliferation of both nuclear and conventional weapons in the Asia Pacific is not at an alarming state, however the challenges are many but none are impossible to be overcome as long as there is will by their respective leaders.
4. The existential threat from these nuclear weapon would, therefore, continue for an indefinite period into the future unless those military powers such as US, Russia, Iran, North Korea, Israel, China, India and Pakistan, not to forget the potential and ambitious country like Japan, Taiwan and Myanmar will orchestrate the new world order in nuclear arm race, development and deployment. These countries have to take serious considerations in the balance of power to avoid the security implications in this region and to the rest of the world.