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JANUARY-MARCH 2006

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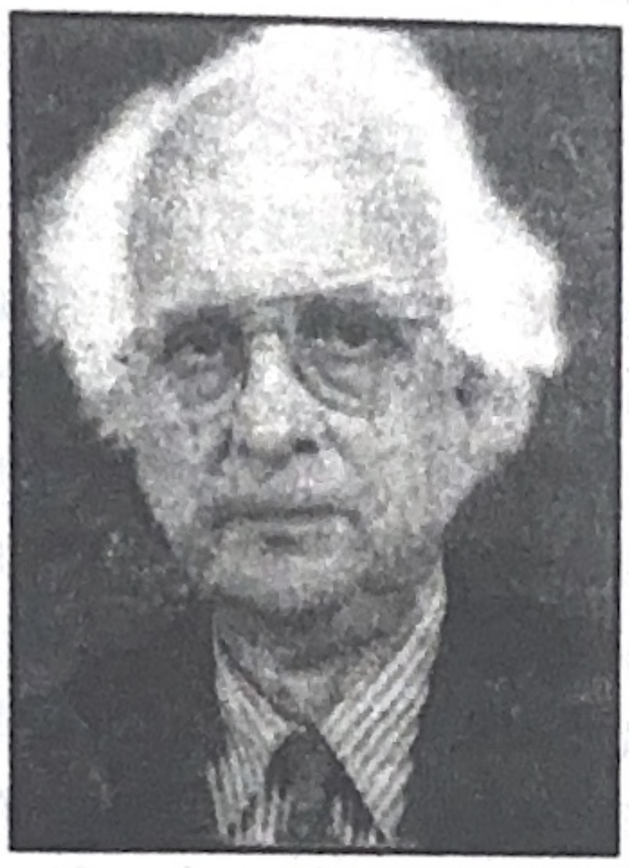
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EULOGY

Professor Matinuzzaman Zuberi



1930 - 2006

Professor M Zuberi was born at Mareha in Etah district of Uttar Pradesh on 15 July 1930. He obtained his Master's degree from Aligarh Muslim University. He went to St Antony's College in the University of Oxford and was Senior Scholar there. Later, he was a Senior Fellow with the Institute of Advanced Studies, Simla. He joined the Jawaharlal Nehru University (JNU) in 1978 and rose to become Head of the Department of Disarmament Studies. He supervised 60 M Phil dissertations and 15 Ph D theses and trained a large number of young security analysts. He continued there till 1995. He breathed his last on 4 March 2006 at New Delhi.

Professor Zuberi was a member of the National Security Advisory Board for three terms, in which capacity he contributed significantly in preparation of the Draft Indian Nuclear Doctrine. He travelled widely to discuss nuclear and disarmament issues and was much respected. He has a number of memorable publications to his credit.

Professor M Zuberi became an Associate Member of the United Service Institution of India (USI) on 10 May 1993. The USI and its members greatly benefited from his participation in the various activities of the Institution and his written contributions from time to time. He was of great help in drawing up the rules and regulations for award of fellowships when the USI was in the process of setting up the Centre for Research. His outstanding contributions to the book on *Weapons of Mass Destruction: Options for India* brought out by the USI in the year 2004 will be remembered not only for the quality of his own work but also for the guidance he provided to other members of the team that put the publication together. His endearing qualities of head and heart will be sorely missed.

EDITORIAL

The 18 July 2005 Indo-US Nuclear deal and its implementation process have provoked debate both in the US and India about the efficacy of civilian nuclear cooperation in the context of the global non-proliferation regime. Dr. Anupam Srivastava in the lead article titled "US-India Nuclear Negotiations: How Equal and Reciprocal?" points out that while most critics of the deal in the US have limited their arguments within the narrow domains of non-proliferation, critics in India have questioned the real US motives behind the deal. The author argues that the deal is crucial because it registers for the first time the US recognition of India as a responsible state with advanced nuclear technology. The author dispels some of the fears of the critics that the deal is against non-proliferation by indicating that the supply of nuclear technology to India's civilian nuclear programme would not accelerate its weapons programme on account of International Atomic Energy Agency (IAEA) safeguards. According to the deal, India has to separate its civilian and military nuclear programmes in order to receive civilian nuclear technology from the US. The author states that the deal would place a high percentage of India's unsafeguarded fissile material and facilities under IAEA safeguards. This would significantly benefit the global non-proliferation regime. Besides the P-5, and amongst the Nuclear Non-Proliferation Treaty (NPT) non-signatories, India possesses the largest nuclear stockpile. India is also a growing nuclear energy market, with the potential of generating enormous profits to American companies. The author asserts that the deal is good for India on four counts. First, it does not curtail India's right of sovereign decision making regarding its strategic programme. Second, the deal, after implementation, would create a viable international framework that would accommodate India's unique status outside the NPT and access to civilian nuclear energy. Third, it would remove all constraints and uncertainties about India's nuclear programme by enabling an unlimited supply of uranium, of which India has a limited domestic reserve. Fourth, international participation in the civilian nuclear sector will bring newer technologies, proven designs for larger and safer reactors. India provided the US with a credible separation plan during the visit of the US President George W. Bush in March 2006. The proposed Indian separation plan placed 14 out of the 22 Indian Nuclear Power Reactors under IAEA safeguards. It now remains to be seen how the Bush Administration engineers the passage of the nuclear deal in the US Congress and amends the 1978 US Non Proliferation law, which prohibits civilian nuclear cooperation with India, and also clinch an exception for India within the Nuclear Supplier's Group (NSG).

Lieutenant General Eric A Vas, PVSM (Retd) in his article titled" The American Offer: Uncertain Risk or Beneficial Opportunity?" focuses on tremendous changes in the Indo-US relations, from the Cold War years of

hostility to the present stage of pro-active engagement. During the early Cold War years, India was heavily dependent on PL-480, and suffered a defeat in the 1962 war with China. India tilted heavily towards the erstwhile Soviet Union, the then adversary of the US. However, India's victory in the 1971 war with Pakistan, the peaceful nuclear explosion in 1974, the successful green revolution and its vibrant democratic ethos increased US interest in India. The end of the Cold War, the rise of India's economic potential since the 1990s and the nuclear tests in 1998 demonstrated India's growing strength. The author indicates that the 11 September 2001 incident was a turning point in the US approach to India. India was acknowledged" as one of the nations with a very large Islamic population free of Al Qaeda and Jihadi influences". The author states, " the US initiative to help India to develop itself as a world class power is related to the creation of balance of power in Asia...". The emphasis in the US foreign policy is to develop a strategic partnership with India as well as tap its reservoir of brain power and vast market for the US goods and services. The author argues that the US is a hegemonic power but it will have to accept the discipline of a global balance of power and a norm based international system in the future.

In the article titled "Impact of Domestic Economic Influences on Indo-US Relations", Lieutenant Colonel Vivek Chadha focuses on trends of the Indian economy and its influence on the Indo-US relations. The author asserts that India's infrastructure development, increased spending potential of its population, and opportunities and avenues for Foreign Direct Investment (FDI), would have a strong influence on future economic policies of the US. Citing from the *Goldman Sachs Economic Paper* of 2003, the author states that the Indian economy would rise from a Gross Domestic Product (GDP) of US $ 604 billion in 2005 to US $ 27,803 billion by 2050. This would make India the third largest economy in the world. However, the rapid growth of the Indian economy will imply an increase in India's energy needs. The projected energy demands of the US, China, Japan, India, and Russia by 2025 are likely to have far reaching implications for the economic equilibrium of not only their economies but also the global economic scenario. The Indo-US economic relations would increase phenomenally primarily because of low cost of Indian services in the arena of software, in comparison to the high cost of the US service providers. The author points out that the future Indo-US economic relations would be dominated by the software development, telecommunications, infrastructure and knowledge based industries. India and the US are also co-operating in the field of use of cleaner energy sources, especially the nuclear energy.

US-India Nuclear Negotiations: How Equal and Reciprocal?

Dr Anupam Srivastava

The 18 July 2005 Indo-US Joint Statement on civilian nuclear cooperation has generated spirited debate in both countries. This is not surprising given that its implications would be enormous not only for the bilateral context but also for the international community. What is surprising, however, is that most critics of this proposed cooperation on the US side have analyzed this within the narrow domains of nonproliferation, while critics on the Indian side have questioned the US "sincerity" or real motives in pursuing this agreement.

The problem of this "disconnect" or difference in concerns expressed in the two countries has, to an extent, been exacerbated by the paucity of information provided in the public domain by the officials on either side. As someone who has had the occasion to interact closely with officials in both countries involved in the July negotiations and broader engagement over the past several years, this article is aimed at elucidating some of the factors that, in my understanding, are driving Washington's efforts to secure a closer partnership with India. The article first addresses the issues pertinent to the July agreement, then identifies the specific factors that are driving each country to pursue the deal, and concludes by offering some recommendations on why the current process of engagement might be in the respective national interest of each side.

The 18 July 2005 Joint Statement

The operative portion of the Joint Statement reads as follows: "President Bush conveyed his appreciation to the Prime Minister over India's strong commitment to preventing WMD proliferation and stated that as a responsible state with advanced nuclear technology, India should acquire the same benefits and advantages as other such states. The President told the Prime Minister that he

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Dr Anupam Srivastava is the Director of the Asia Program at the Center for International Trade and Security, University of Georgia.

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will work to achieve full civil nuclear energy cooperation with India as it realizes its goals of promoting nuclear power and achieving energy security.[1]

The Joint Statement, thus, is not an agreement *per se* but "codifies" the bilateral *intent to cooperate* in pursuing a sequence of discrete steps to make civilian nuclear energy available to India, and will be pursued on an essentially reciprocal basis.

On the US side, the relevant steps are as follows:-

(a) Work with India to ensure that the latter's plan to separate its civilian and weapons-dedicated nuclear facilities is credible and verifiable,

(b) Present the relevant details of the "plan" to the US Congress and request it to amend its domestic legislation (Nuclear Non-Proliferation Act, 1978) in order to permit civilian nuclear assistance to India,

(c) Remove all Indian "civilian-designated" facilities from the list of entities with which such assistance is currently prohibited,

(d) Initiate civilian nuclear cooperation (including fuel supplies to the reactors at Tarapur) within the "civilian nuclear complex" of India, and

(e) Initiate dialogue with states parties to the Nuclear Suppliers Group (NSG) to make a substantive "exception" to India such that members could engage in civilian nuclear cooperation within India's "civilian nuclear complex."

On the Indian side, the relevant steps include:-

(a) Prepare a list of nuclear facilities (power plants, research reactors, and fuel fabrication and mining facilities) that it will place under its civilian nuclear complex,

(b) Provide technical information on how these civilian facilities will not only be physically separate from the weapons-dedicated ones, but also what kinds of safety policies, procedures and practices, "fire walls", will be put into place to

ensure against diversion of any kind from the civilian to the weapons complex,

(c) Provide a timeline for the implementation of this separation and installation of the "fire walls,"

(d) In regular consultation with their US government counterparts, negotiate a full scope safeguards agreement with the International Atomic Energy Agency (IAEA) for the civilian nuclear complex and sign the Additional Protocol, and

(e) Strengthen its export controls further and align its nuclear and missile control lists with those of the NSG and Missile Technology Control Regime (MTCR).

Factors Explaining US Interest in the Nuclear Deal

The US executive branch has not provided adequate information in response to the spate of criticism from its domestic nonproliferation community, although it will provide detailed information, some within classified settings, to members of the US Congress before the vote on amending the Nuclear non-proliferation Act 1978 takes place. And at various points since July, under Secretaries Burns and Joseph, and Secretary of State Condoleeza Rice, have stressed both the nonproliferation and the wider strategic gains from pursuing this agreement with India.

The US executive branch, recognizing the likely points of domestic (and international) criticism, has nevertheless pursued this cooperation with India because it is very clear on certain points. First, the deal does not provide any assistance whatsoever to India's nuclear weapons complex.

Second, the supply of civilian grade fissile material, or building of new power reactors, does not "free up" fissile material or resources that Government of India can then allocate solely to accelerate its weapons program, as alleged by some influential voices in Washington. Separately, Government of India is understood to have communicated to the US Administration that while its pursuit of nuclear weapons capability is non-negotiable, it nevertheless is not pursuing an ambitious and open-ended program or one that seeks numerical parity with its neighbours. Rather, it is building a small, flexible arsenal to enhance deployment options and

survivability, with a second-strike posture, all geared toward creating a "credible minimum deterrent."

The third factor in Washington's calculation is that the July "deal," in effect, places over 80 per cent of India's hitherto unsafeguarded fissile material (and facilities) under international (IAEA) safeguards. Outside of the P-5, amongst the Nuclear Non-proliferation Treaty (NPT) non-signatories, India has the largest stockpile compared to Pakistan and Israel. And whether Iran and North Korea stay within the NPT or not, which are developments independent of the Indo-US agreement, this deal brings the majority of global unsafeguarded fissile material under IAEA safeguards. This is a significant net positive for global nonproliferation efforts, whose importance should not be underplayed, particularly given the growing threats of determined proliferators or terrorists seeking access to fissile material in many of the 44 countries with active nuclear programmes and capabilities.

A fourth factor in Washington's calculations is that the US negotiation with India over the past decade and more was so narrowly configured, with an exclusive nonproliferation focus - seeking membership of the NPT, or capping of its weapons programme, or based on a punitive (embargo-based) approach - that it had led to a sterile outcome. As such, the ambit of the engagement was widened to include recognition of India's strong record on horizontal nonproliferation, strict voluntary controls on sensitive dual-use exports, and rapidly expanding energy needs. And in return for lifting domestic and international restrictions to help meet India's energy needs, it is pursuing an agreement that promotes US (and international) nonproliferation goals without formally recognizing India's nuclear weapons status or augmenting such capability.

A final factor is that apart from China, India is the only other country with a sizeable nuclear energy market that the US and international energy providers can operate in for the next twenty years or more. Since a power reactor providing 1000 mWe electricity roughly translates to a cost of US $1 billion, India and China represent energy markets of at least US $25 billion and US $35 billion respectively. And so for the US administration, pursuing the July deal represents a net-positive situation: meeting India's energy

requirements, making a profit from it, not assisting India's weapons capability, placing India's civilian complex under IAEA safeguards, and possibly helping New Delhi use greater prudence in seeking alternate oil and natural gas sources from regimes that might undermine regional or global security. It thus promotes US nonproliferation goals, and improves the bases for seeking a broader, technology-embedded commercial and defense relationship with India, an emerging power in Asian and global affairs.

Factors Explaining Indian Interest in the Nuclear Deal

For India as well, the deal represents a net-positive situation for four reasons. First, it does not curtail its domain of sovereign decision-making regarding its weapons programme. Second, the deal aims to create the only viable international framework that can accommodate India's unique status and secure it access to civilian nuclear energy. Critics often state India's non-membership of the NPT as a reason why such assistance cannot be provided. This is flawed on two grounds. One, the NPT text does not prohibit civilian assistance to non-members. And two, no one realistically expects India to join the NPT as a non-nuclear weapon state (NNWS) nor can India realistically expect an amendment of the NPT to induct is as a NWS. So this issue is a red herring. But the more intractable problem is the NSG which prohibits members from providing civilian nuclear assistance to countries that do not permit fullscope IAEA safeguards on all their nuclear facilities. India clearly cannot do so because that would mean submitting its weapons complex as well to IAEA safeguards. This implies that the US, and other NSG members interested in entering into civilian nuclear cooperation with India, namely Russia, France, Britain and Canada, are also currently unable to do so. Thus, the deal represents the only viable *modus vivendi* to meet India's needs without violating international nonproliferation rules and guidelines.

A third factor in New Delhi's calculations stems from the constraints and uncertainties in the current status of India's nuclear energy programme. The first stage of India's nuclear power programme comprises 12 Pressurised Heavy Water Reactors (PHWRs), which generate about 2,500 mWe, i.e. a meager 2.5 per cent of current national requirement, which itself is growing rapidly. The scope for scaling up operations with PHWRs remains very limited, even if more reactors, and of larger capacity (500mWe or

higher), could be built. The constraints are not only financial. India's domestic reserves of uranium are limited, sufficient for generating only up to 10,000 mWe from PHWRs, along with the uncertainties attendant with relying on uranium imports from abroad. In the second stage, the Department of Atomic Energy (DAE) plans to use fast breeder reactors (FBR), which can process the spent (uranium) fuel from the PHWRs to create plutonium and residual uranium. If successful, this could generate up to 5,00,000 mWe and vastly improve the energy situation for the intermediate (25 years) term. But DAE has not yet reached the point where it can operationalize this model and generate power at commercially viable rates. And only after the FBRs begin functioning smoothly would DAE be able to proceed to the third stage, of building Advanced Heavy Water Reactors (AHWRs), which can use a mixture of thorium-uranium fuel to run a sustainable power generation programme over the longer term. For the record, DAE is building a 500m W AHWR which it expects will become operational by 2010, but the commercial viability of the AHWR programme still remains to be seen. In this context, the July deal can provide critical additional sources to complement India's domestic nuclear energy options.

The fourth and related Indian interest stems from the fact that international participation in the civilian nuclear sector will bring in newer technologies, proven designs for safer and larger reactors, and result in market-clearing prices and efficiency in power production. Indeed, the July deal has committed Washington to securing India's membership and participation in the International Thermonuclear Energy Research (ITER) and the Generation Four programme that seeks to augment the current nuclear fuel cycle options and make them commercially viable. India's domestic nuclear sector has performed well during the long decades of embargoes and created a pool of technologies that can be adapted to wide uses. With the infusion of commercially viable international technology, reactors and other resources, it is likely that the performance and productivity of the domestic sector will also experience efficiency gains visible in many other sectors since the economic reforms began in 1991.

Recommendations

First and foremost, the Government of India, and especially the domestic critics, must realise the true significance of the July

deal. When implemented, it will amend the US non-proliferation law and grant a substantive exception for India from the NSG. It will, in other words, end the nuclear stalemate between India and the global nonproliferation order that has existed for over three decades. Second, it will permit nuclear commerce with India, providing it commercially viable technologies of nuclear power and plant safety, without which India's long-term economic growth will at least decelerate, if not be inhibited further. Third, from a global standpoint, it will bring India into the nuclear fold, instead of being the most significant "outlier" whose conduct and capabilities merit a position of importance in the shaping of the regimes' activities in the future. Fourth, the deal is designed to achieve all this without impinging negatively on India's sovereign decision-making relating to its nuclear weapons capability and future progress.

In light of the above, the debate in India relating to the implementation of its end of the deal should focus on the following issues. First, is a better, or even a similar deal possible for India in the future? The answer, quite candidly, is in the negative. Second, many US critics of the deal argue that India's voluntary compliance with nuclear non-proliferation is unlikely to change, and so the "rewards" imbedded in the July deal are unnecessary, even if the US desires a broader and closer relationship with India. This brings up the harsh question: would New Delhi be willing to pursue selective proliferation and then blackmail its way into a superior deal with the United States or other prominent members of the global non-proliferation regimes? If not, then why not implement the current deal that provides it the best possible options given its outlier status?

Third, India should realize that such a momentous agreement and attendant benefits cannot come without paying a substantial price for it. But what exactly is the price that the deal extracts from India? The first price is that after having designated and separated the weapons complex from the civilian one, India cannot move a civilian facility back to the weapons side. This relates to the "in perpetuity" phrase later used by an US official that generated sharp debate in the public discourse. But as a Government of India official stated, a credible separation plan cannot permit moving a facility later from the civilian to the weapons complex, because it could create a situation where a facility that received external assistance

on the civilian side is moved to the weapons side, thus aiding India's weapons program, which would be a violation of the July deal.

The second portion of the price relates to including FBRs in the civilian complex. Government of India has every right to negotiate hard on this subject and it should. But its political leadership also has the obligation to ensure that it is not DAE's parochial interests masquerading as India's "national interest" in this negotiation. The DAE is understandably unhappy that it will have to share its authority and oversight over the civilian-designated complex with the IAEA. Further, once the veil of national security is lifted from these facilities, and their performance assessed on international benchmarks, DAE is likely to come across as having performed rather poorly. This negative assessment has actually been made several times by the Atomic Energy Regulatory Board (AERB) and the Comptroller and Auditor General (CAG). But now, questions will be raised more openly about why a country whose first research reactor (Apsara) became operational in 1956, has not done more to reduce prices and increase power production in the past five decades? And now, the metric by which their performance will be judged will likely be the power plants built in India by Russia, Canada, France and the US.

Finally, the critics of the July deal should recall that in 2001-02, Government of India had informally approached the US with an "islanding" proposal and explored a nuclear "grand bargain" whose lineaments were strikingly similar to the July deal. The US and India have since then worked to not only enhance the standards of technology security in India to permit greater US-India trade in advanced dual-use items, but also interacted closely to codify some of India's informal practices in the area of export controls. The former set of efforts was initiated within the High Technology Cooperation Group (HTCG) and later the Next Steps in Strategic Partnership (NSSP). Both have paved the way for the July 2005 deal, which thus should not be seen as a hasty initiative or one that has been undertaken without proper spadework and careful consideration on both sides.

In sum, the critics of the July deal in both countries should recognize the unique and propitious set of circumstances that have

brought the Bush administration and the Manmohan Singh government to negotiate a historic agreement. The fruits of the deal will be nuclear energy for India without curtailing its weapons program. And it will help the US bring India into the mainstream of global nuclear non-proliferation institutions and efforts through the only mechanism acceptable to itself, India, and the NSG. And while India took over four decades to decide on whether it should overtly weaponize its nuclear capabilities, it should remember that it has only a few months to begin implementing the deal before the Bush administration's energies are re-directed towards the Congressional elections at the end of 2006. And if the July deal fails to be implemented, on which both the US and India have staked much of their global reputations, it will be a long time indeed before such an imaginative and far-reaching initiative is considered actionable and prudent by either country.

End Note

1. "Joint Statement Between President George W. Bush and Prime Minister Manmohan Singh," Press Release, The White House, July 18, 2005; http://www.whitehouse.gov/news/releases/2005/07/20050718-6.html

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The American Offer: Uncertain Risk or Beneficial Opportunity?

Lieutenant General Eric A Vas, PVSM (Retd)

When I was in Washington in April 2000, Stephen Cohen invited me for dinner at his Watergate Apartment. He was then Director of the Brookings Institute and a key adviser on South Asian affairs to the US Administration. During the course of the evening, I asked Stephen what book he was currently working on. He said," India, an Emerging Power." I laughed and said, "You are pulling my leg. You wrote that one some years ago." He replied, "That book was *India: an Emerging Power?* This one will have no question mark. America will ensure that it happens." I sensed that Stephen was not joking.

When I returned to India I reported this conversation to influential bureaucrats and politicians in Delhi. They were unconcerned by my information. This is not surprising because, in spite of the National Security Council being set up in 1998, India has no tradition of developing long range assessments of international security developments and making this the basis of both a national consensus as well as our long term policies. This is evident even years later, when our response to the US policy announcing its intention to help India build itself as a major world class power in the 21st Century has been confused. There has been no attempt to assess what the US interests and expectations are.

US Cold War Strategy

In 1947 Americans, brainwashed by the British, believed that Islam would bind Pakistan firmly while India with its multifarious languages, cultures and religions would not remain united. Their lack of faith in India was enhanced by knowledge that the country could not feed itself and was heavily dependent on PL-480 inputs. The 1962 Sino-Indian Conflict made it evident that India could not even defend itself. The Americans were convinced that Pakistan would win a future war against India. They were surprised that this did not happen in 1965.

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India's victory in the 1971 Indo-Pak War altered America's image about the country. Thereafter, India conducted a nuclear test in 1974, survived an emergency and produced a democratic change of regime, reached settlements with Shiekh Abdullah, the Nagas, and Mizos, had a successful green revolution and launched a satellite. It was Islamic Pakistan which broke up. Whilst accepting that India has the highest number of poor and illiterates in the world, it is also admitted that there is no other example of a de-colonised country building itself into a modern industrial state and also into a multicultural, multi-religious and multilingual democracy.

For the US, the Soviet Union was a military adversary and the Cold War was a power struggle. The Soviet Union had to be confronted and contained ideologically, militarily, politically, economically and technologically. Winning over China, an ally of the Soviet Union, was part of that strategy. Since India would not allow itself to be part of the containment plan, the US tilted towards Pakistan against India. In 1990 the Cold War ended with the Paris Agreement. Historically, it was a unique event. Two adversaries armed to the teeth with missiles and nuclear weapons, confronting one another militarily for over four decades signed a treaty to disarm without having fought a war. Both powers realised that the role of the military in a nuclear age was not to fight wars but to prevent wars from breaking out.

Post 9/11 Strategy

The nineties saw India's growth rate rise to 6 per cent. In 1998 India demonstrated at Pokhran that it could produce thermonuclear war-heads. It launched a geo-synchronous satellite into space. Its poverty level came down and its scientific community started making a significant impact on the Information Technology revolution. The contribution of Indian scientists to US research and development came to be recognised. India started accumulating a sizeable foreign exchange reserve. It also demonstrated that its coalition governments provided political stability to the system. India fought to regain the Kargil heights from Pakistan with remarkable restraint. The 11 September 2001 incident was a turning point in the US approach to India, which was acknowledged as one of the nations with a very large Islamic population free of al-Qaida and jehadi influences though the country was being subjected to externally inspired terrorism.

By now the course of events in Vietnam, Afghanistan and Iraq had demonstrated that in today's world it is easier to invade a country than to keep it occupied. War is, therefore, no longer an instrument of politics as it was considered earlier. Nor are nuclear weapons and missiles a currency of power, which they were earlier. This did not mean that armies could be disbanded. That cannot happen while there are rulers who have not reached this conclusion.

Today's globalised world gives rise to many problems, but globalisation is an inevitable result of the electronic age. The world's economy is so integrated that the value of the Chinese currency has its impact on the US economy and outsourcing both in manufacturing and services has become the order of the day. The currency of power is knowledge. The US would like to continue to be the pre-eminent nation in the world. However, a recent forecast by the National Intelligence Council of the US has assessed that the US, China and India would be among the first three markets of the world by the year 2020.

Dealing with China

Given China's inevitable rise of per capita income, there is nothing to prevent it becoming the richest nation of the world. Since wars are no longer cost effective, the rivalry between the US and China for pre-eminence in the world is not likely to be solved by war. Since the future currency of power is knowledge, US efforts are concentrated on ensuring that it stays ahead of China in terms of knowledge generation, inventiveness and technology. After having fought a war with China in Korea [1950-53] in which thousands of Americans perished, the US made a complete U-turn in its policy towards China. After 1971, it began dealing with China not as an adversary but as a rival. This strategy is the exact opposite of confrontation or containment and implies engagement. While the US had avoided trade and economic links with Moscow during the Cold War, it has become the largest trading partner of China and is heavily involved in the Chinese economy.

China responded enthusiastically to this US strategy and embraced American investments on a massive scale. They sent their students in thousands annually to US universities. The Americans have succeeded in persuading the Chinese leadership to abandon Communism in economic terms. Today, Chinese Communism is only a cover for authoritarian rule by the Communist

Party. By so doing China did not lose its sovereignty or give up its vital interests. On the contrary, today the US worries about China becoming a serious rival. US efforts are on how to bring about change in China to make it accept democracy and abide by the rules of the international game. The US hopes to bring China around through its relationships with Japan, South Korea and India. Towards that end, Asia must have a balance of power. The US initiative to help India to develop itself as a world class power is related to the creation of this balance of power in Asia in which all major economies will be interactively engaging with and not containing or confronting China.

A more powerful nation helping a less powerful nation to build itself, happens when the more powerful nation calculates that the end result would be to its advantage. At the end of the 19th Century, Britain transferred technology to Japan and invested heavily there to build Japan as a counter balance to Czarist Russia. Similarly, at the end of the Second World War, both Germany and Japan were recipients of US aid. They became security partners of the US. All the East Asian tigers became strong because of massive US support. In the 1950s China received massive aid for its industrialisation from the Soviet Union.

Building Up India

India's record of accepting military and developmental aid from other countries and yet maintaining its independence speaks for itself. There were those who denounced the Indo-Soviet Treaty of 1971 as having made India a Soviet satellite. There were others who argued that Soviet help was going to trap India to join Brezhnev's anti-China security arrangement. Both those assessments proved wrong. Many oppose present Indo-American co-operation. Underlying this timidity is an exaggerated fear of the US as the sole superpower. To think of the US as an all-powerful superpower able to impose its will on the rest of the world on every issue is a continuation of the Cold War mindset and does not represent the reality of today. Many in India have not grasped this point, but the US leadership appears to have done so.

The Americans have done their homework. To stay competitive in business, they need three things. First, increasing amount of brain power that could sustain American inventiveness; second, an ability to cut costs through outsourcing; third, a large market.

The emphasis is on India as a rising economic power, a potential third market of the world and a reservoir of brain power available to be tapped. Those who argue about the hidden costs in the American offer have a valid point. But they should not stop at just raising fears and walking away. They should try and spell this out in long and short terms. Our attempt should be to have an objective assessment of the US offer and to carry out a calculated cost-benefit analysis on it.

Let us do an elementary assessment of the global balance of power some three decades from now. China will have overtaken the US in terms of aggregate Gross Domestic Product (GDP). Unless China becomes democratic it will face uncertainties and instability. India will be the most populous country in the world and be comparatively younger than China in age profile. In terms of skilled manpower generation India will have an advantage. It is also likely that the Indian population in the US will be many times what it is today and in all possibilities will have commensurate political clout. As the US and China compete for a pre-eminent position, India as a third market power and the largest reservoir of scientific talent will be in a significant position to influence the result. In India, this issue has not been fully understood.

During the Cold War, the US applied pressure on India through support to Pakistan. Today, all political parties in the US want to lead Pakistan towards becoming a moderate Islamic state. General Musharraf is considered necessary for this policy. Though Pakistan has not yet dismantled its terrorist infrastructure, the US policy is committed to a reduction in cross border terrorism in Jammu and Kashmir and secessionists can no longer look for the US support. In the present situation the US needs Musharraf for its war on terrorism just as our Central Government needs tainted politicians to sustain its majority in Parliament. The US is offering a measure of defence co-operation with India which will in a few years leave Pakistan far behind. Musharraf knows that the changes occurring on the international scene are reducing Pakistan's utility for the US global strategy

Many warn that the US is a hegemonic power and India can never have an equal partnership with it. There is no denying that the US has been a hegemonic power for the past six decades. But the arguments advanced so far have demonstrated that the system

is changing fast. The US will have to accept the discipline of a global balance of power and a more norm-based international system in future. Iraq is as much a new beginning for the US as it is for the authoritarian Islamic states. Anyway, the US is more of a liberal democracy in its domestic policies than other major powers including India. Those who talk of hidden costs involved in accepting the US initiative forget the past. India was able to resist the entire international pressure between 1990 and 1998 when the US was all powerful. Since then, India has become a stronger economic and political power and has developed new linkages. There is no way that India can be made to accept discriminatory controls over its nuclear or missile programmes. The US offer of civil nuclear aid to India is related to President Bush's conviction that energy requirements of the US, China and India cannot be met in the future on the basis of hydrocarbon solutions.

Will US Initiatives Continue?

One cannot rule out the possibility of China moving towards democracy. If this were to happen, the US will nevertheless try to maintain its pre-eminence and mobilise Indian help for that purpose. Some speak of millennia-old friendship with China in the hope that it will prompt India to lean towards China on the basis of Asian solidarity. In the coming years there will be a few million Indians in the US. This factor will tilt India in favour of the US. Indians would prefer a pre-eminent US to a pre-eminent China.

Will the US initiative towards India succeed? The US policy has two components: to tap Indian brain power and mobilise Indian skills and ensure US competence and inventiveness. If India does not respond officially to this initiative, the US will deal directly with Indian companies, universities and individuals. Will this initiative survive the Bush Administration? There is likely to be a political battle within America between those who look at outsourcing from the short-term populist point of view and those who take the long-term view. Pro-Chinese lobbies in the US, and anti-US lobbies within India may raise objections and campaign against the policy. You can be sure that the bureaucracies and Cold War warriors in Delhi and Washington will keep trying to block the two countries from arriving at a satisfactory agreement to both sides. Ultimately the result will depend upon the two political leaderships and business communities.

Impact of Domestic Economic Influences on Indo-US Relations

Lieutenant Colonel Vivek Chadha

India's economic metamorphosis began in 1991, with the Narasimha Rao government coming to power and its Finance Minister Manmohan Singh, introducing a series of economic reforms, which transformed India. Within a span of five years India, from endlessly remaining a potential economic power reached the threshold of economic boom. The Gross Domestic Product (GDP) saw a quantum jump from three per cent to more than double the rate per annum. Foreign Direct Investment (FDI) increased, as opportunity and potential were unleashed. Most importantly, liberalisation of the economy and growing competition witnessed Indian companies taking on global brands and gaining in self-confidence. This reflected in the zeal to carry business across continents to earn revenue and repute. Simultaneously, the jump-start of the economy also created more funds, for infrastructure development and social welfare with dependence on foreign loans reducing.

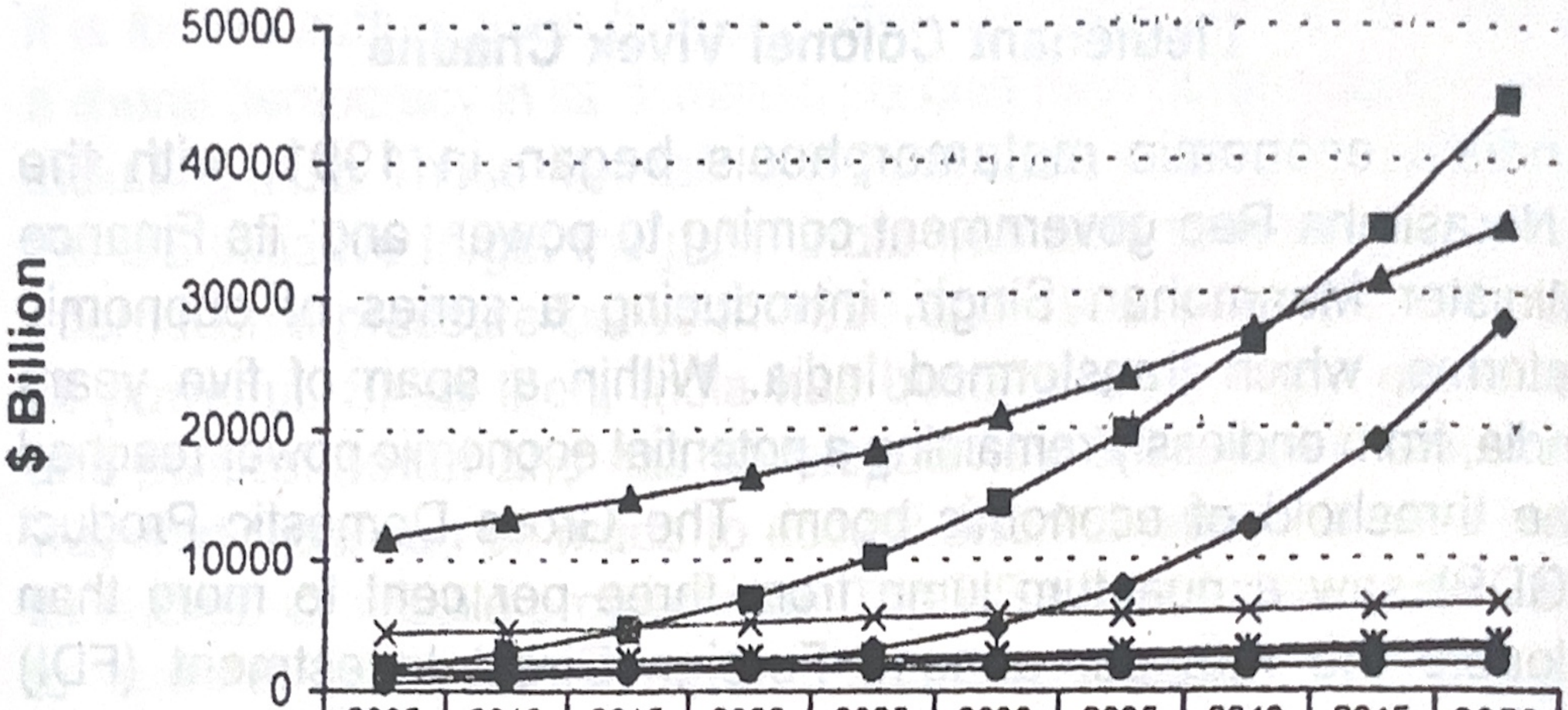
A study of the long term perspective of the Indian economy will reveal certain trends, potentials and weaknesses, which will give indicators of how and where these realities are likely to influence the economic policies of the United States as well as business groups in that country. This is especially relevant with respect to how India's economic prowness is perceived, dividends provided, and potential and benefits of FDI and scope for trade enhanced. All this is likely to be influenced by the environment, infrastructure development, relative spending potential of the population over the years, opportunities and avenues and the knowledge base to translate potential US technology and skills.

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Table 1

GDP Growth ($US billion)



	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
India	604	929	1411	2104	3174	4935	7854	12367	18847	27803
China	1724	2998	4754	7070	10213	14312	19605	26439	34799	44453
United States	11697	13271	14786	16415	18340	20833	23828	27229	30956	35165
Japan	4427	4601	4858	5221	5567	5810	5882	6039	6297	6673
Germany	2011	2212	2386	2524	2604	2697	2903	3147	3381	3603
Italy	1236	1337	1447	1553	1625	1671	1708	1788	1912	2061
France	1489	1622	1767	1930	2095	2267	2445	2668	2898	3148

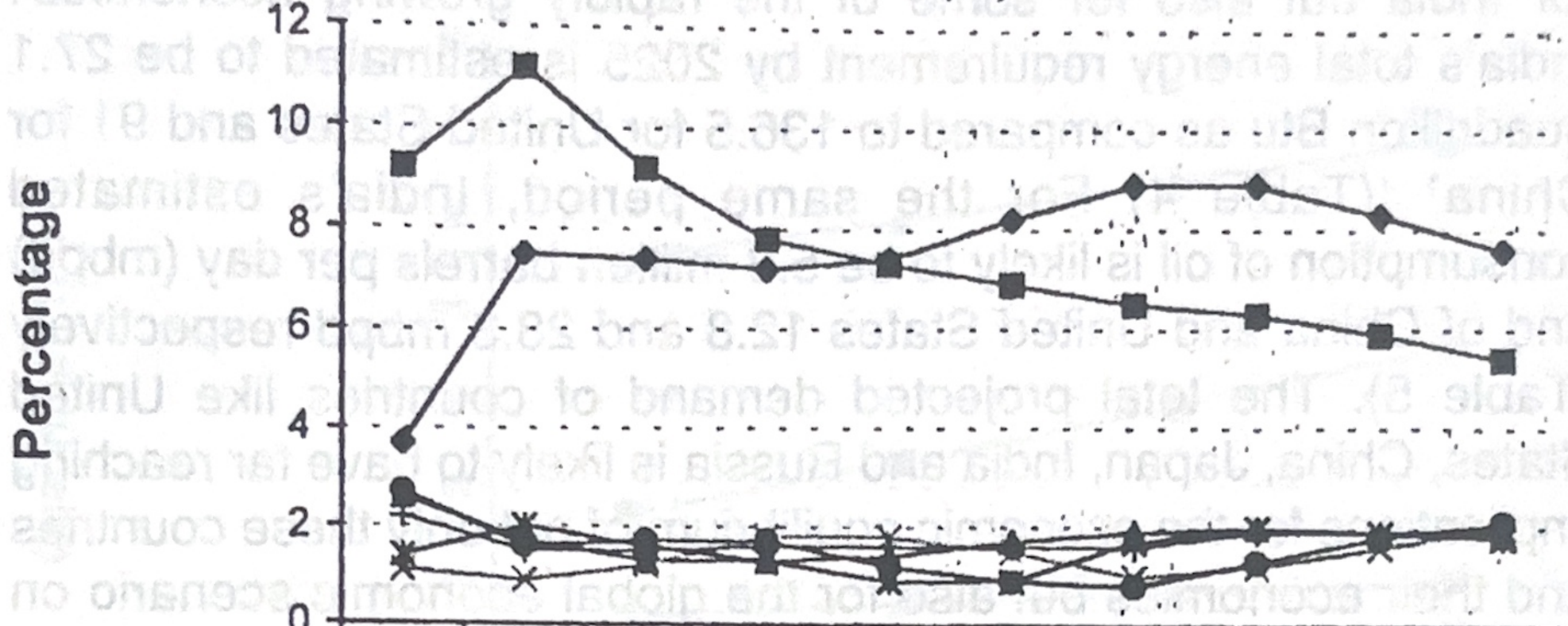
(Goldman Sachs : Global Economics Paper No: 99, 1 October 2003)

Indian Economy in Long Term Perspective

India's GDP growth assessed by a Goldman Sachs paper makes revealing study. From rate of US $604 billion in 2005, it is likely to rise to US $4395 in 2030 and US $27803 by 2050 (Table 1). The paper also compares India's development with other major countries with a similar growth potential. These include Brazil, Russia, India and China (BRIC). This phenomenal rise when compared to other important economies will make India the third largest economy by 2032. India will also have the highest rate of growth over a long-term perspective of 30 to 50 years (Table 2). It is also revealing to note that the combined purchasing pattern of the BRIC countries is likely to outstrip the G6 as early as 2009, with projections in subsequent years clearly pointing to phenomenal markets in these countries of which China and India are likely to retain the major share for spending (Table 3).

Table 2

GDP Growth (%)

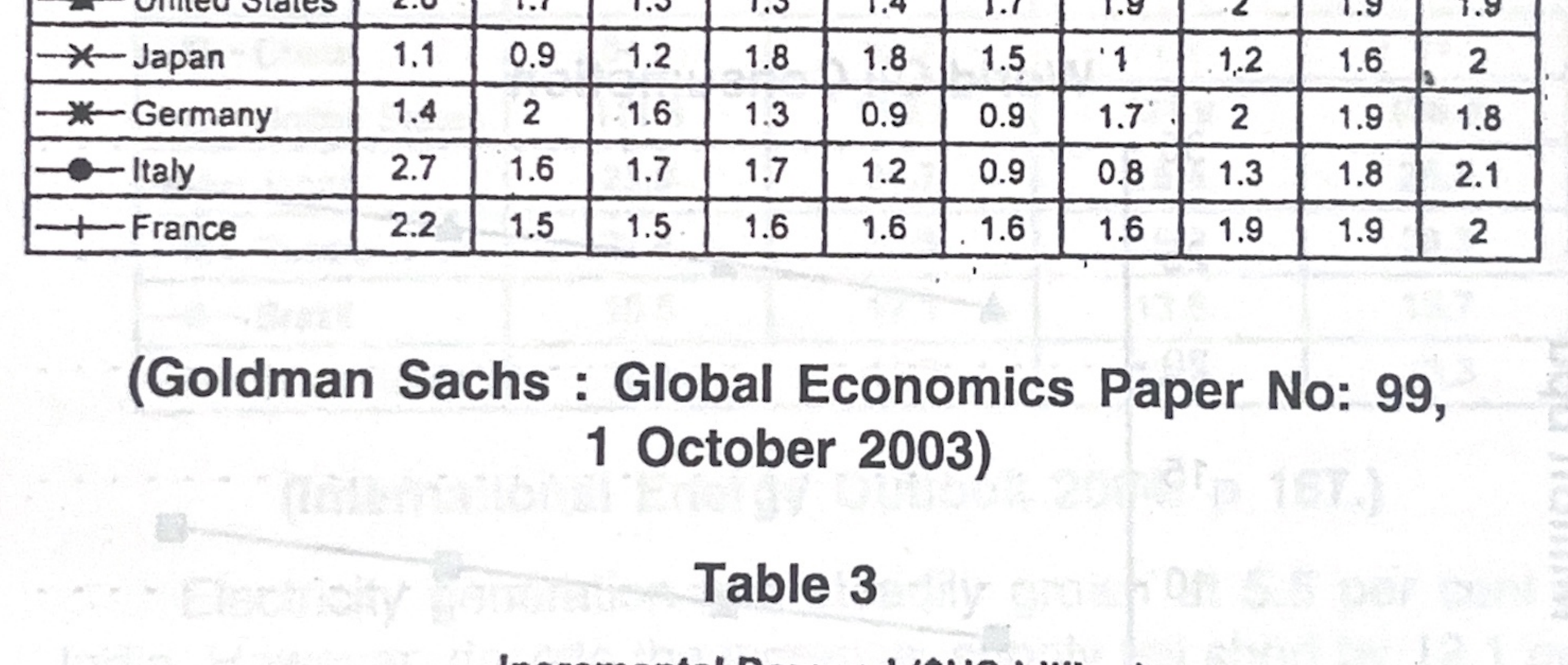


	2000-05	2005-10	2010-15	2015-20	2020-25	2025-30	2030-35	2035-40	2040-45	2045-50
India	3.7	7.5	7.4	7.2	7.4	8.2	8.9	8.9	8.3	7.6
China	9.2	11.2	9.2	7.8	7.3	6.9	6.5	6.3	5.9	5.4
United States	2.6	1.7	1.3	1.3	1.4	1.7	1.9	2	1.9	1.9
Japan	1.1	0.9	1.2	1.8	1.8	1.5	1	1.2	1.6	2
Germany	1.4	2	1.6	1.3	0.9	0.9	1.7	2	1.9	1.8
Italy	2.7	1.6	1.7	1.7	1.2	0.9	0.8	1.3	1.8	2.1
France	2.2	1.5	1.5	1.6	1.6	1.6	1.6	1.9	1.9	2

(Goldman Sachs : Global Economics Paper No: 99, 1 October 2003)

Table 3

Incremental Demand ($US billion)



	2010	2030	2050
BRICs	521	1594	4517
G6	470	656	1137

Note : BRICs - Brazil, Russia, India and China.

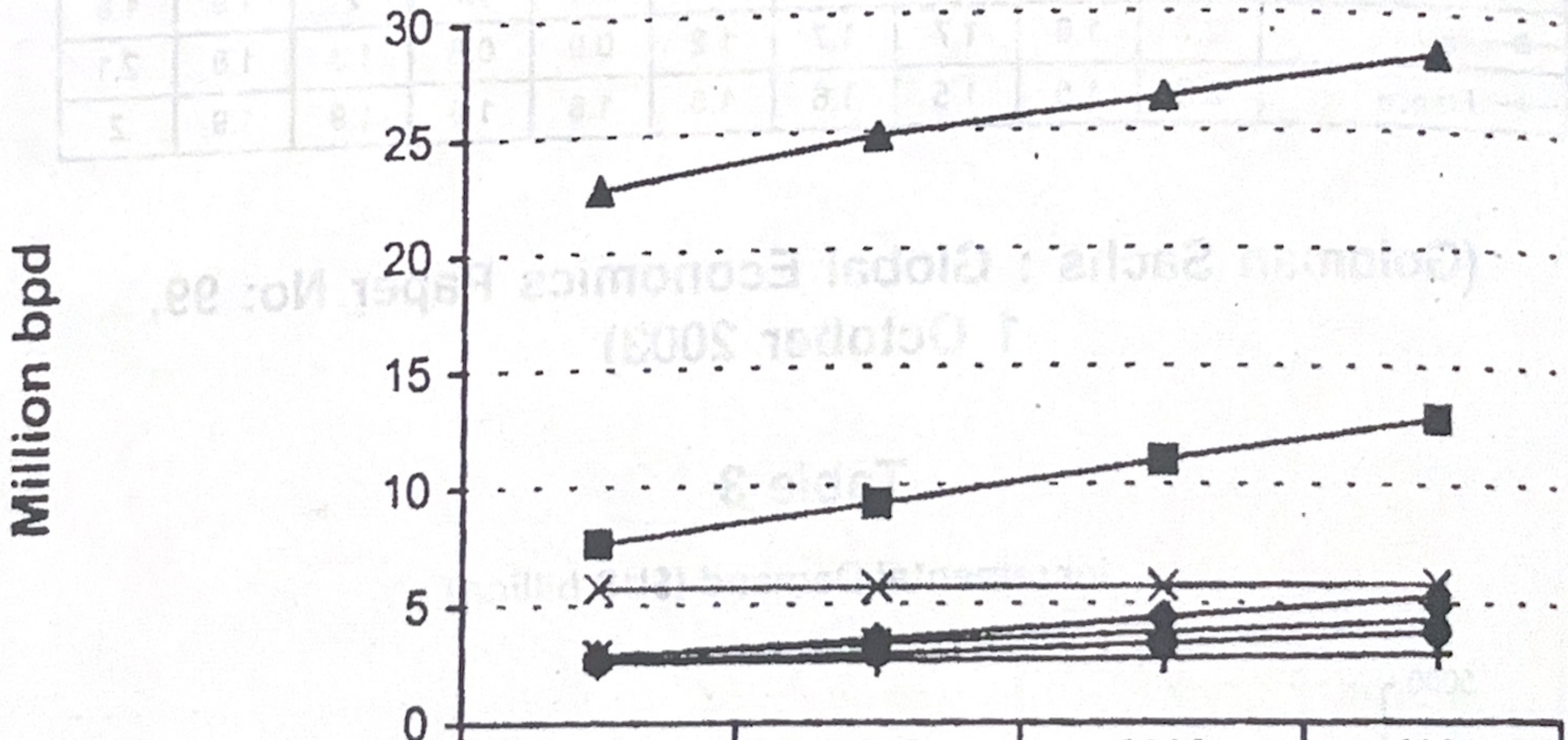
G6 - USA, UK, France, Germany, Italy and Japan.

(Goldman Sachs: Global Economics Paper No: 99)

It is apparent from these basic economic parameters, that there 'will be a substantial enhancement in energy needs not only for India but also for some of the rapidly growing economies'. India's total energy requirement by 2025 is estimated to be 27.1 quadrillion Btu as compared to 136.5 for United States and 91 for China[1] '(Table 4) For the same period, India's estimated consumption of oil is likely to be 5.3 million barrels per day (mbpd) and of China and United States 12.8 and 28.3 mbpd respectively (Table 5). The total projected demand of countries like United States, China, Japan, India and Russia is likely to have far reaching implications for the economic equilibrium of not only these countries and their economies but also for the global economic scenario on a monumental scale.

Table 4

World Oil Consumption

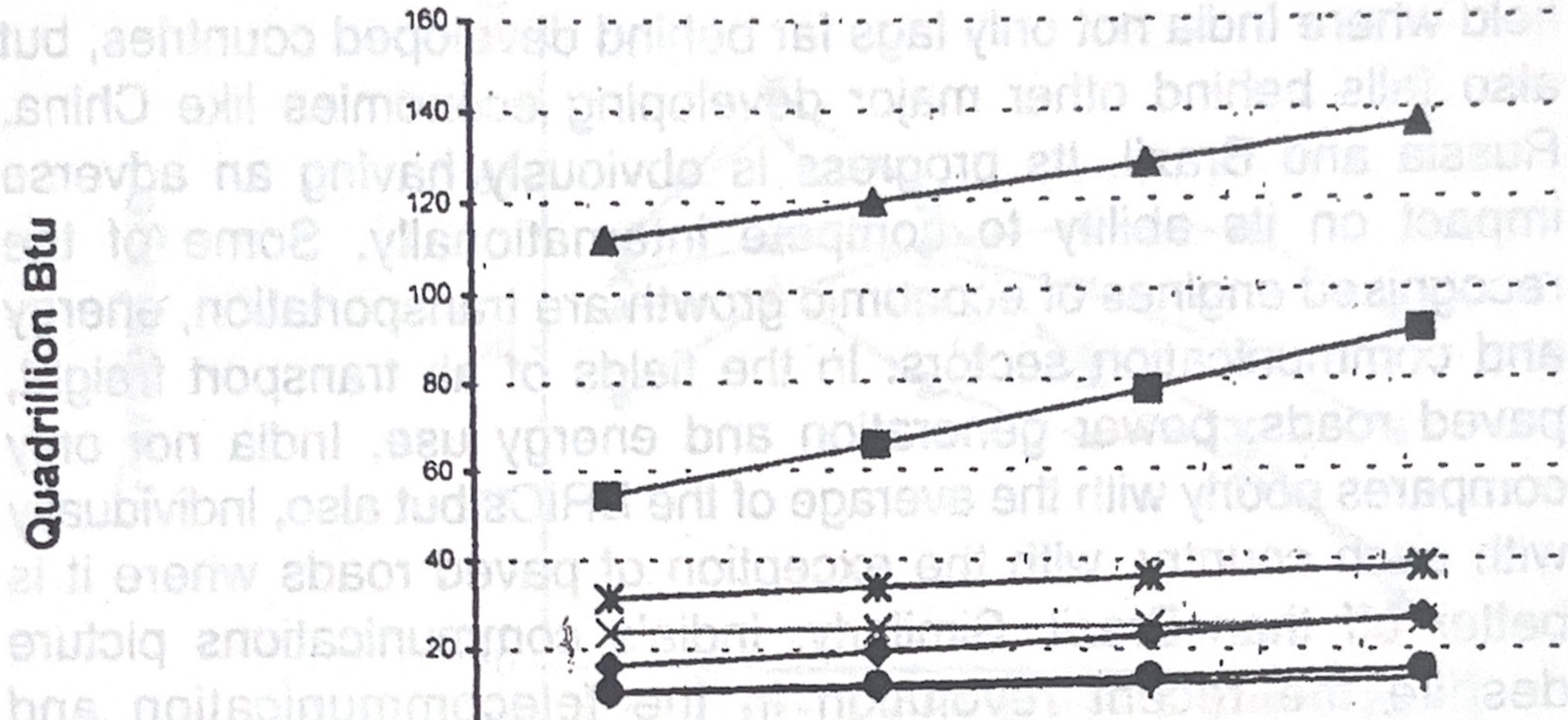


	2010	2015	2020	2025
India	2.8	3.5	4.4	5.3
China	7.6	9.2	11	12.8
United States	22.7	24.8	26.4	28.3
Japan	5.7	5.7	5.7	5.8
Russia	2.9	3.3	3.8	4.3
Brazil	2.6	2.9	3.3	3.8
South Korea	2.5	2.6	2.7	2.9

(International Energy Outlook 2004: p 164.)

Table 5

Total Primary Energy Consumption



	2010	2015	2020	2025
India	16.4	19.5	23.2	27.1
China	54.6	65.7	77.7	91
United States	111.8	119.7	127.9	136.5
Japan	23.9	24.7	25.4	26.3
Russia	31.4	33.8	36.2	38.3
Brazil	10.5	12.1	13.8	15.7
South Korea	10.1	11.3	12.3	13.3

(International Energy Outlook 2004: p 167.)

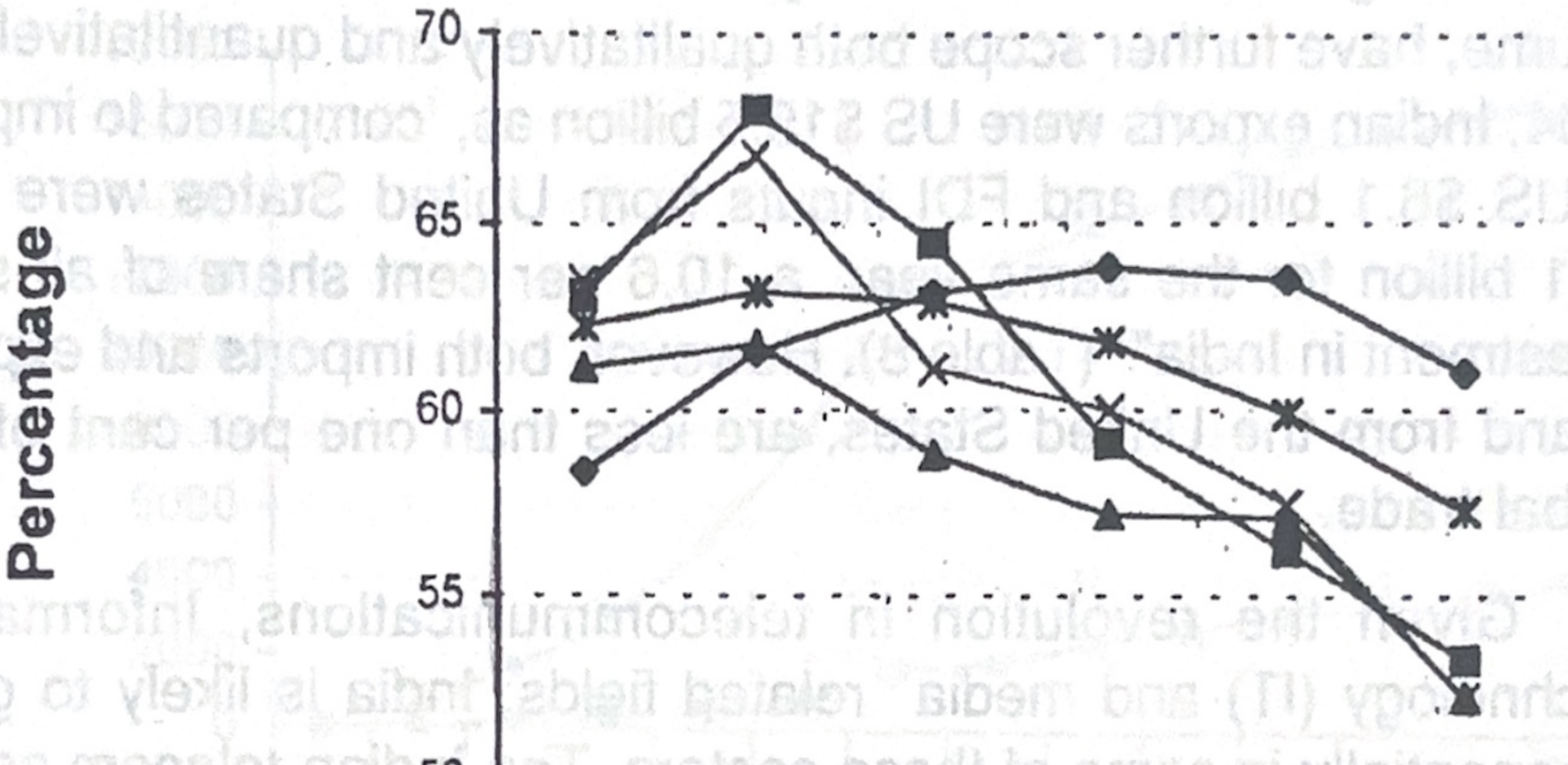
Electricity generation has steadily grown at 5.5 per cent in India. However, despite the increase, supply fell short by 12.1 per cent for the financial year 2004-05.[2] According to the *Economic Times*, this shortfall is likely to further increase as demand in the rural areas catches up from the measly average of 526 units kilowatt-hours per year and a - meagre 13 per cent of all electricity consumed in the country. In 2005, "56 per cent of India's households, and just 44 per cent of those in rural areas, have connections to the grid."[3] The country plans to double its generation capacity in the next ten years to ensure that it can sustain the impressive growth rate of over six per cent that has been sustained for over fifteen years. This is a major challenge for the Indian economy if it has to sustain its ongoing momentum and remain attractive to foreign investment and capital. It is also an attractive market for renewable energy sources and nuclear energy.

It is evident from models of most modern countries that economic progress of both individuals and countries is closely tied with the degree of development of basic infrastructure. This is one field where India not only lags far behind developed countries, but also falls behind other major developing economies like China, Russia and Brazil. Its progress is obviously having an adverse impact on its ability to compete internationally. Some of the recognised engines of economic growth are transportation, energy and communication sectors. In the fields of air transport freight, paved roads, power generation and energy use, India not only compares poorly with the average of the BRICs but also, individually with each country, with the exception of paved roads where it is better off than Brazil. Similarly, India's communications picture despite the recent revolution in the telecommunication and information technology sector does-not compare well with the other three BRIC countries.[4] It is expected that India is likely to experience a major growth in these fields with substantive initiatives in progress in all these sectors.

Yet another factor, which will influence growth of economy and increasing opportunities within and outside the country is the availability of manpower in the working age group. In this field, India is likely to take the lead with a consistently increasing pool of manpower availability both in terms of percentages as well as sheer numbers (Table 6). It takes a mere look at the percentages, and more importantly, at the total population to get an idea about the number of people likely to be available in India, which will undoubtedly make up for the deficiencies in other major countries (Table 7). According to demographer A R Nanda, by year 2020; "the US would be short of 17 million people in working age, China of 10 million, Japan nine million and Russia six million. Indians would then be absorbed into some of these economies."[5] When this is seen in relation to the "2.5 million IT, engineering and life sciences graduates a year, besides about 650,000 post graduates in science"[6], the perspective becomes clearer.

Table 6

Working Population (%)

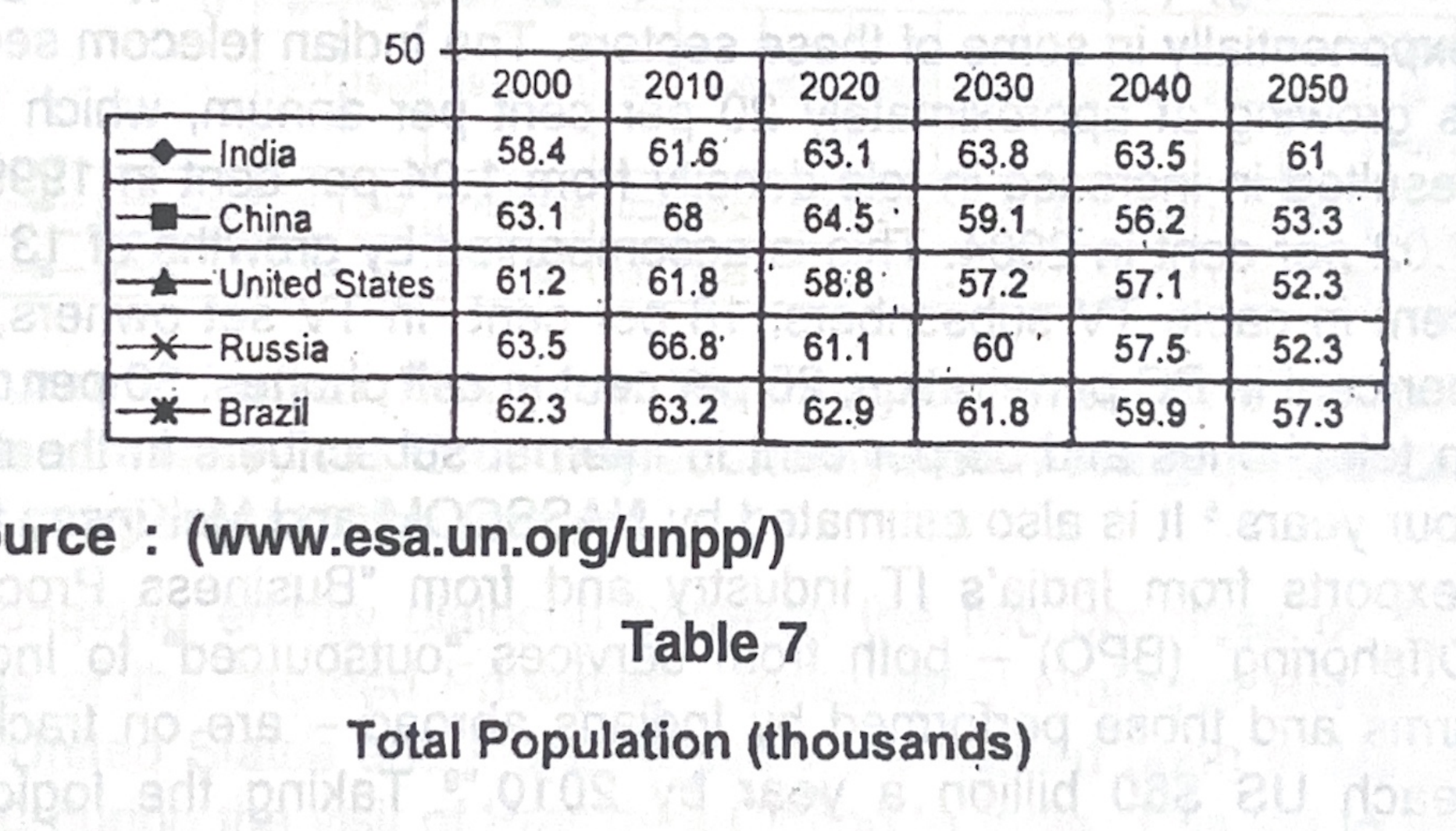


	2000	2010	2020	2030	2040	2050
India	58.4	61.6	63.1	63.8	63.5	61
China	63.1	68	64.5	59.1	56.2	53.3
United States	61.2	61.8	58.8	57.2	57.1	52.3
Russia	63.5	66.8	61.1	60	57.5	52.3
Brazil	62.3	63.2	62.9	61.8	59.9	57.3

Source : (www.esa.un.org/unpp/)

Table 7

Total Population (thousands)



	2000	2010	2020	2030	2040	2050
India	1021084	1183293	1332032	1449078	1534402	1597734
China	1273979	1354533	1423939	1446453	1433431	1392307
United States	284154	312253	338427	360894	379544	394976
Russia	146560	140028	133101	125325	118334	111752
Brazil	173858	198497	219193	235505	246766	253105

Source : (www.esa.un.org/unpp/)

Indo-US Economic Relationship and Prospects

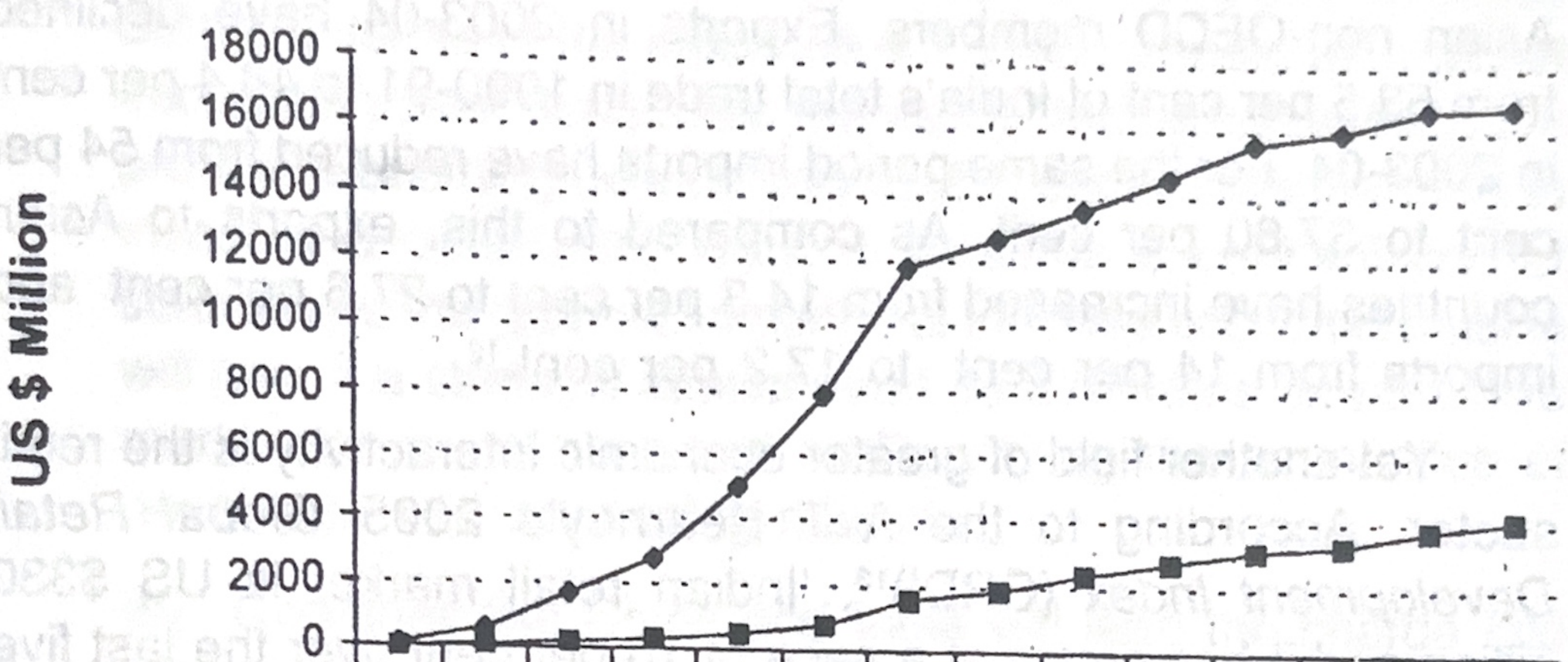
Specifically, with regard to relations with the United States, the existing levels of trade though, substantially better in terms of volume, have further scope both qualitatively and quantitatively. In 2004, Indian exports were US $15.5 billion as, 'compared to imports of US $6.1 billion and FDI inputs from United States were "US $4.1 billion for the same year, a 10.6 per cent share of all such investment in India"[7] (Table 8). However, both imports and exports to and from the United States, are less than one per cent of US global trade.

Given the revolution in telecommunications, Information Technology (IT) and media related fields; India is likely to grow exponentially in some of these sectors. The Indian telecom sector is growing at approximately 20 per cent per annum, which has resulted in increase in tele-density from 1.94 per cent in 1999 to 7.02 per cent in 2004. This is accompanied by growths of 13 per cent in cable TV subscribers, 18 per cent in TV set owners, 27 per cent in PC penetration, 28 per cent in cell phones, 30 per cent in telephones and 58 per cent in internet subscribers in the next four years.[8] It is also estimated by NASSCOM and McKinsey that "exports from India's IT industry and from "Business Process Offshoring" (BPO) – both from services "outsourced" to Indian firms and those performed by Indians abroad – are on track to reach US $60 billion a year by 2010."[9] Taking the logic of outsourcing further, the *Economist* claims, "India's fundamental attraction has not changed since it drew software developers: fantastic cost savings. With American lawyers costing US $300 per hour or more, Indian firms can cut the bills by 75 per cent.[10] These figures are indicative of both a burgeoning market as well as an improvement in some of the infrastructure areas like telecommunications and IT at a feverish pace. The present thrust of the US investments in India has been in the field of fuels (35.93 per cent) telecommunications (10.56 per cent) electric equipment including software (9.5 per cent), food processing (9.43 per cent), and the service sector, finance and non-finance (8.28 per cent).

However, the future holds a lot of promise in the fields of software development, telecommunications, infrastructure and knowledge based industries like pharmaceuticals and biotechnology. The power sector has also been opened up for foreign investment and there is a concerted thrust towards increasing the share of cleaner energy sources, which has led to

Table 8

YEARWISE CUMULATIVE FDI



	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004 till Aug
Approved	76	547	1676	2788	5035	7908	1178	1268	1353	1451	1560	1603	1671	1685
Inflow	11	55	203	322	537	808	1545	1892	2323	2742	3109	3392	3788	4133

(Source : Indian Embassy Washington Web Site) http://indianembassy.org/Economy/economy.htm#Foreignpercent20Directorpercent20Investment

an ongoing energy dialogue between the two countries on the basis of the "Agreed Principles - Institutional Dialogue Between the United States and India," which were agreed upon in March 2000 during the visit of President Clinton to India. This led to the establishment of a "High Level Coordinating Group," which included the US-India Financial and Economic Forum, US-India Commercial Dialogue and the US-Indian Working Group on Trade. One of the important provisions it provided for was the setting up of a Joint Consultative Group on Clean Energy and Environment. This has received a boost after the announcement of likely co-operation in the field during the landmark announcement on 18 July 2005, which highlighted American interest in assisting India in the field of nuclear power generation for civil use.

There has also been a marked increase in trade, between India and the United States in the recent years. In 2004, exports from India grew by 18.37 per cent to US $14.328 billion whereas for the same period imports grew by 22.73 per cent to US $5.532 billion. However in comparative terms when seen in perspective of the exponential growth of Indian trade with China, which rose from US $5 billion to US $13.6 billion from 2002 to 2004; a degree of

cautious enthusiasm needs to be maintained. Trade with Organisation for Economic Co-operation and Development (OECD) countries has shown a downward trend when compared with Asian non-OECD members. Exports in 2003-04 have declined from 53.5 per cent of India's total trade in 1990-91 to 46.4 per cent in 2003-04. For the same period imports have reduced from 54 per cent to 37.80 per cent. As compared to this, exports to Asian countries have increased from 14.3 per cent to 27.6 per cent and imports from 14 per cent to 17.2 per cent.[12]

Yet another field of greater economic interactivity is the retail sector. According to the A T Kearney's 2005 *Global Retail Development Index* (GRDI)[13], 'Indian retail market is US $330 billion and it has grown at a pace of 10 per cent over the last five years. Quoting Mike Moriarty, Vice President, A T Kearney, a news report stated, "The message for retailers on India is clear: move now or forego prime locations and market positions that will become saturated ,quickly," It added, "Global retailers that missed opportunities to capture first-mover advantage in China can make up for it in India."[14] However, it is important to keep in mind that irrespective of India's increased trade with China, "Wal-Mart's supply chain pulled in US $ 18 billion worth of goods in 2004 from five thousand Chinese suppliers."[15] The Chinese spokesman of Wal--Mart added, "If Wal-Mart were an individual economy, it would rank as China's eighth--biggest partner, ahead of Russia, Australia and Canada."[16] This is the reality that India needs to pitch its standards against.

The last factor is not economic in essence, yet in practice it has had a greater impact than some others. India and some regions in the United States have an almost 12 hour difference in their time cycles. This has worked to the benefit of India as it gave the opportunity to exploit any 24 hour cycle to the optimum between the two countries. When combined with the strength of India's knowledge based service industry and the knowledge of English, this has helped fuel economic inter dependence and growth in a unique manner.

Conclusion

The basic facts bring out some very interesting conclusions, which are likely to impact Indo-US relations. These are:

(a) China's phenomenal GDP growth along with some other fast growing economies of the world like India, Brazil and

Russia will be watched closely by the United States. This growth, when translated into economic possibilities highlight issues of rise of China as an economic counterpoise to United States in terms of the influence it is likely to wield as a global economic power. It also has the vast potential for participative profit in a booming economy for global companies planning to invest and outsource. Thus, it presents a contradiction of sorts where the growing influence of Chinese economic muscle will give it a strategic impact even as it remains an attractive market for investment and profit, driving the economies of developed and developing markets.

(b) Countries like China and India will lead the charge into the world economic power club with only two countries of the present G-6, United States and Japan figuring in the list by 2050, making Asia the hub of economic growth. This is likely to lead to growing competition for economic space, advantage and leverage between major developed countries like the United States and Japan and emerging countries like China and India unless complementary symbiotic growth continues to fuel economies as prevalent in the existing scenario.

(c) Though there may be differences in strategic perspective between major powers to include United States, China, Japan and India, yet economic compulsions in terms of need for investment, technology and business in developed countries and markets, cheap outsourcing and offshore practices in fast developing economies, have ensured a closely interlinked relationship, which is proving to be a win-win situation for all countries. This is borne by the fact that both India and China have positive trade surpluses with the United States. Simultaneously, it has improved the profitability of companies in Japan and America who have benefited because of advantages offered in services and a competitive production base.

(d) There is likely to be a substantial growth of Indo-US trade as is indicative by the trends available. However, the pace, is likely, to be influenced by, appreciation of the mutual benefits of the relationship, resolution of contentious issues like property rights, tariffs and further liberalisation of the Indian economy.

Differences of opinion are likely 'to remain on the pace, and sectors open for liberalisation, as the Chinese example could serve as a test bed for Indian policy makers.

(e) Even as India's trade volumes increase substantially, the advantages offered by markets and businesses in China and Southeast Asia are likely to compete for business stakes in the long run, especially if prickly issues are not resolved.[17] This will present a challenge for the United States in an increasingly competitive market.

(f) India's highest GDP growth in the long-term and the allied benefits of trade and investment are likely to remain a major attraction influencing bilateral relations. These factors present India, along with China as the most attractive economic destination with a long term potential, which can be a major impact on US profitability and sustainability as a world economic leader.

(g) Increasing energy requirements of both oil and combined sources especially by fast developing economies like India and China as well as developed countries like United States will continue to fuel demand and keep the importance of energy sources as the engine of global economy at a very high level. This will impact strategic relations of all the three countries with major oil and gas producing nations - in some cases notwithstanding poor counter-terrorism, human rights and democracy records. It also highlights the importance of clean alternative energy as a critical need for India's fast burgeoning economy.

(h) Relatively poor infrastructure status in India is likely to have negative economic implications for the country. This is specifically relevant to bilateral economic relations with the United States as also in terms of retaining a competitive edge with other major growing economies. Therefore, one of the major fields of cooperation between India and the United States is likely to be nuclear power generation as a clean source of fuel for India, to help the country bridge the gap between growing needs and limited availability of crude oil and the adverse impact of fossil fuels on the environment.

(j) The limited levels of FDI coming from the United States are a reflection of the vast potential which could benefit both

countries. The 2004 levels indicate less than 3 per cent of total American investment in India, despite the fact that India is considered the top retail destination in the latest A T Keamey's 2005 Global Retail Development Index (GRDI)[18]. However, this trend is likely to change with growing interest in India steadily translating into a better percentage of FDI when compared to the approval to investments ratio of 14.87 per cent in 1991 to 24.52 per cent in 2004.[19] (See Table 8)

(k) The advantage in terms of manpower surplus in the working age group and more specifically of an English speaking, technically qualified workforce will not only spearhead India's services sector but also its manufacturing, outsourcing and offshore trade. They also have the potential to fill in these slots in the international market.

(l) India's emergence as a knowledge power is in US interest as it is India, which has the socio-economic capability and geo-strategic congruence to assist the United States to remain ahead of China in its quest io remain the pre-eminent power in the world.

The threat of containment for both India and the United States is emerging as one of the most important concerns. However, it needs to be noted and emphasised that this threat is as much if not more from "economic containment" as it is from "strategic containment". The threat of this form of containment will not be through weapons and conventional armies but from adoption of the rules of globalisation, knowledge, infrastructure development, free trade area treaties and armies of economic warriors.

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ADDRESS UPDATE

ALL MEMBERS ARE REQUESTED TO INTIMATE CHANGE OF ADDRESS ON OCCURENCE, INCLUDING TELEPHONE NUMBER AND E-MAIL

Impact of War in Iraq and Emerging Security Challenges in the Middle East

Lieutenant General Chandra Shekhar, PVSM, AVSM (Retd)

The First Gulf war commenced, in effect, on 02 August 1990 with Iraq's invasion of Kuwait and ended with its eviction on 28 February 1991. The actual conflict witnessed the war being fought by Iraq against a multinational coalition of 50 countries, which had 38 countries contributing actively to war. This virtually one sided war was fought in several dimensions, political, diplomatic, economic and finally military with the rapid capitulation of the Iraqi forces. The combat phase lasted 42 days including a 100 hours ground war. The operational environment witnessed excellent co-ordination of multinational assets by the coalition. Whereas Iraq had deployed its forces in static defence of Kuwait and prepared for attrition warfare, the coalition employed manoeuvre warfare and destroyed the Iraqis means of waging the war as also their will, with overwhelming firepower and high technology. The war became totally one sided and resulted in the imposition of the UN sanctions - both economic and military, including periodic inspections for Weapons of Mass Destruction (WMD) by the UN teams.

Before an analysis of the second Gulf War is made, it is necessary to recapitulate its geo-strategic environment. Iraq is strategically located in the Middle East. It borders Turkey, Syria, Jordan, Iran and the Arabian Peninsula in the South. It is the gateway for the Central Asian Republics and has the largest oil resources after Saudi Arabia. Iraq had been involved with a war with Iran for eight years before being engaged in the conflict with Kuwait which resulted in the First Gulf War of 1991. Subsequent to that conflict, it had come under the UN sanctions. It was also subject to active surveillance and to selective Anglo-American bombing, thus crippling its economic and military capabilities. At the time of the US led coalition war in March 1993, it had been ruled by Saddam Hussain's Sunni dominated Baath-Party, although it had a heterogeneous population of 55 per cent Shias, 22 per cent Sunnis, 18 per cent Kurds and 5 per cent Turkman and Assyrian Christians.

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The political aim of the Second Gulf War in 2003 by the American led coalition-forces was to wage a 'Pre-emptive War' to oust the Saddam Hussein regime who allegedly supported terrorism, and possessed WMD, and to establish a democratic set up in Iraq. The military intervention in Iraq by the US Allies was, however, without the sanction of the UN Security Council. There were widespread protests by the international community and public criticism by France and Germany against this overt unilateralism of the US. The war was, in every respect, illegitimate as neither was there any evidence of WMD nor of Al Qaeda linkages. As for the so called right of 'pre-emptive strike' it can be resorted to only in Self Defence, for which also no justification existed.

The military aims of the war were to ensure an early collapse of the regime by securing the key towns of Baghdad, Basra and Mosul with speed and the economic assets of oil wells, ports and air-heads.

The military strategy was to conduct joint military operations with relentless offensive action for the capture of Baghdad, once the battle field was sufficiently degraded. It consisted of the following components:-

(a) Crippling the fighting potential of the Iraqis by denial of wherewithal through sanctions and by massive military build-up on air, sea and land to break their will to fight. The isolation of Iraq was achieved by an eight months long concentration of forces.

(b) Destruction of Iraqi Military capabilities, command and communication centres and leadership by application of the strategy of "Shock and Awe" through air attacks, Precision Guided Missiles (PGMs) and technology degradation. The US led coalition launched 1200 air-sorties per day. They destroyed over 2500 tanks and other equipment by PGMs and smart bombs from 30 warships and air bases.

(c) Conducting Psychological operations by information warfare, intelligence operations and exploiting ethnic diversities of the population. The Kurdish population in the North was openly supportive, the Shias in the South displayed a mixed response with the Sunnis definitely hostile to the invasion.

Analysis of the Second Gulf War

The US military operations achieved spectacular success,

over running the entire country within three weeks. Momentum of the operations were maintained by developing strategies in depth, by exploiting speed and mechanised forces, Special Forces operations and air power. Independent logistics capabilities were provided by self containment, aerial resupply and securing air heads. Such situations are not normal and assymetrical war would exist only as exceptions, between adversaries.

Collateral damage was minimized for the civil assets by avoiding fighting in the urban centres by engineering surrenders and defection. But the damage to the country's infrastructure was considerable, particularly to power, oil and water supply, since it became difficult to distinguish military targets from the civil targets in the capital city of Baghdad and other major towns.

Air-Power and Air-Space Management. It is not only the control of various platforms in the air, but also the tremendous clutter of communication transmission that would call for strict control and management. In the case of ground forces, the launch base was 200 Kms south in Kuwait and air bases extending over considerable distances from Europe to the Indian Ocean. In the first weeks of war, a dozen opportunities to strike time-critical and high-value targets were missed due to the wide sensor-shooter gap. This was markedly reduced to just 12 minutes as the operation progressed, displaying substantive strides in improved joint operations, inter-operability and seamless data linking.

Civil Affairs. This is described as facilitating military operations and consolidating operational activities by assisting commanders in establishing, maintaining, influencing or exploiting relations between military forces and civil authorities, both governmental and non-governmental, and the civilian population in a friendly, neutral manner in a hostile area of operation. Language and culture training of target countries is essential. Cross-cultural proclivities and sophistication can be developed by study of a target country and living there for some time. Unless this is done, civil affairs will not succeed. This is a Special Forces mission and selected Units would have to train for it. The American forces did not adequately plan this aspect well in Iraq. They firstly antagonised the local population unlike the British forces who were friendlier and polite. Secondly, rather than be the liberators of the oppressed people, the Americans behaved like an "Occupation Force". Thirdly, after

disbanding the Government machinery i.e. the Army, the Police and other agencies it should have been ensured that such steps do not hurt the national pride of the Iraqi people.

Use of high technology. All weather continuous surveillance by 'Global Hawk' Unmanned Aerial Vehicles (UAVs) and aerial platforms, satellite digital communication, PGM strikes, use of tank busters (40 bomblets) and use of smart bombs, both from air and warships achieved total degradation of Iraqi war machine. Iraqi equipment was mostly of pre-1991 vintage Soviet origin, which could not be up graded or even maintained due to lack of spares and the imposition of UN sanctions. It had few "Scud" missiles and AD guns which were no match for the Allied air might.

Use of Special Forces. Special Forces were used effectively before, during, and after the campaign both for the traditional roles and for unconventional warfare. In addition to the unconventional warfare, they were used for rapid transfer and management of human and signals intelligence, and for directing air-strikes

Post conquest Issues. Western media had created an impression that a military conquest of Iraq would not be difficult and that when the Americans went in, the Iraqi people would greet them as liberators. The obsession with the conquest was so paramount, that the coalition forces did not take the necessary steps for preventing the administrative collapse of Iraq or closing the porous borders with Jordan, Syria and Iran to prevent escape of Saddam loyalists across the borders. Similarly the damage to infrastructure was so total that even the basic amenities like water and electricity supply became a major problem.

The Current Iraq Situation

In military terms, the US started losing the upperhand in Iraq when the Islamic fundamentalists and others opposing them started to fight the coalition forces in Iraq where the coalition forces present over a hundred thousand targets daily. Restricting themselves into "fortresses" results in loss of freedom of manoeuvre, whereas sallying out involves escorting by tanks gunship and helicopter guns ships. Both the options require additional troops and resources, which would imply nearly doubling the present force levels of 150,000 troops. Every US soldier killed raises the morale of the Islamic fundamentalists correspondingly reducing the morale of the US forces.

According to a reliable analyst, (Jeffiry D Sachs) America is paying an astounding US $ 51 billion per year to station 1,40,000 troops in the country. The US could save itself tens of billions of dollars per year by withdrawing troops and instead allocate resources for reconstruction of infrastructure and recovery of oil production. The US seeks greater participation from friendly countries for additional troops as well as funds but opposition from Jehadi Islamists and absence of UN mandate are the restricting factors. The US has already lost 2000 soldiers since last two years, whereas in Vietnam the total US soldiers killed between 1962-63 were only 392. This is making the war in Iraq highly unpopular in the US.

It would be reasobable to assume that the US is unlikely to stabilise the situation without enhancing the force levels. A pull out would result in loss of face and greater chaos. Placing the country under UN Security Council control does not serve the long term US strategic goals or provide control over oil. The US is left with no choice but to continue 'occupation' for another three to five years and shape the new Iraqi Government. The US is also simultaneously undertaking back-channel contacts with the insurgents both amongst the Sunnis and Shias, to break the insurgency.

Instability in Iraq suits the Sunni population, who dominate only 4 out of 18 districts. The Al Qaida supporters in the region, and the Taliban in Afghanistan are growing stronger. Syria and Iran are threatened by the Americans with possible air-strikes. The two US allies - Saudi Arabia and Pakistan also have hardliners at the grassroots who are supporters of fundamentalists, with the autocratic governance at the top forced to coexist with the fundamentalists.

The Emerging Security Challenges in the Middle East

It appears that having temporarily pushed the Islamic fundamentalists from Afghanistan, the Anglo-American intention to use Iraq as a launch pad for further consolidation in the Middle East with Turkey, Israel, Saudi Arabia and Pakistan on the outer flanks, has met a setback for the present. American bases in the Central Asian Republics for operations in the region have also become potential trouble spots as both the local governments and

the Russian and the Chinese have come to suspect them of serving American interests.

After winning the war in both Afghanistan and Iraq and bringing down the governments that were in power before the attacks, the resistance of the local population has increased and Fidayeen attacks have taken a heavy toll of both the coalition led forces and civilian populations. One of the biggest problems that the US forces and their allies face is the need for higher allocation of combat elements for safeguarding the assets and bases of the occupying forces. It leaves less effective combat strength for offensive operation whose reach and periodicity is thereby reduced. The public opinion in America and in the home countries of the coalition countries demands reduction and early return of their soldiers, which has no prospect of immediate relief in sight. The morale of the occupation forces would get adversely affected due to prolonged deployment and the stress. This would require shorter tenures and frequent relief and hence higher allocation of troops,

The high tech advantage of the initial onslaught of shock and awe and savage effects has died down. The local elements fighting the Americans have found ways to effectively neutralize the high tech advantage.

Urban Warfare-Future Trends. The Americans did not visualize the need for sufficient ground forces and the power of the boot" in the urban warfare in Iraq and they are not able to ensure effective security in Iraq. William S Lind and others of the US Army, have written on the **Fourth Generation of Warfare** where the battlefield is likely to include the enemy's society and warfare will be widely dispersed and the distinction between war and peace may vanish. The difference between civilian and military may disappear, as there would be no definable battlefields or fronts. Major military and civil facilities will become targets. The characteristics of this type of warfare combined with new technology would possibly be the outline of the fourth generation of warfare. However, urban warfare involves people, and unless deliberate attempts are made to win them over, nothing else will succeed. It implies military dealing with non-state actors rather than the conventional armed forces of a country, (such as the Jehadis) with which they are not comfortable.

SECURITY SCENE IN THE IRAQI NEIGHBOURHOOD

Post Conflict Peace Building

The political process in 'Iraq' has not proceeded as visualized and the interim Government has taken a heavy beating. The Army and the Police have not become fully professional, lacking leadership, motivation and equipment. The new constitution that is being worked out as the federal democratic set up has met with disagreement by the 'Sunnis' who do not want the federal structure, as it would involve domination of Shias and the Kurds in respective majority areas, leading to eventual separation and disintegration.

Balance of Power in the Region

Although, in general terms the war in Iraq has not altered the security scene in the Middle-east dramatically, it has changed the balance of power as under:-

(a) The new Regime in Iraq will no longer be a pro-Arab Sunni regime as the majority Shias, the Kurds in the North of Iraq, and to a certain extent the Turkmans will sit in a mixed government. A Shia Regime in Iraq is also likely to develop closer relations with Iran, thus posing a potential threat to the Saudis, the third major power in the region.

(b) The US is now a power in the region with its troops stationed in Iraq. This will make the radical forces in Syria and Iran uncomfortable.

(c) The war has inflamed Arab anger and encouraged radical elements as also anti-West resentment, thereby creating a space for the Islamic radicals who subscribe to fighting a Jehad against Western powers. Frequent suicide attacks within Iraq and outside in the neighbouring region of Israel and Jordan clearly demonstrate this trend.

(d) The traditional US-Turkey cordial relations were also somewhat strained due to the denial of bases to the US as also due to the rising aspirations of the Kurds for autonomy. However, Turkey remains a strategically located North Atlantic Treaty Organisation (NATO) ally both to the US and the European Union (EU).

US-Iran Relationship

Re-establishing security in Iraq would become the prime concern of the international community to prevent its spill-over effect. As far as Iran is concerned, it does not pose any credible threat to the US notwithstanding the US branding it as part of the 'evil empire', although in a decade or so it may pose some threat to US interests in the region. It is unlikely to harbour any expansionist ambition. However, Iran would need to be integrated into the world community in return for its abjuring its nuclear ambition, by lifting all restrictions and providing access to nuclear technology for peaceful purposes.

The US-Arab Equation

Despite the rhetoric, the Syrian response to the Israeli air strikes on Palestine Liberation Organisation (PLO) was symbolic. Most countries in the region are beholden to the US in one way or the other. Egypt, the traditional leader in the Middle East has been living on an annual American grant of US $ 2 billion since the Camp David agreement. However, wide-spread suspicion remains among Muslims that Iraq is only part of a wider American plan to subvert their faith. Jordan, though one of the progressive states has hardcore elements with Jehadi leanings who undertake terrorist activities in Iraq with some of the underground groups.

Relationship with CAR countries

The US intrusion into the traditional Russian turf of Central Asian Republics (CAR) worries Moscow more and more. What began as temporary American Military presence in Central Asia endorsed by Russia to facilitate the anti terror war in Afghanistan, far from winding up, is expanding. In addition to air bases in Uzbekistan and Kyrgyzstan, the US is helping Kazakhstan to set up a naval base on the Caspian Sea close to the Russian border, besides seeking to lease three military bases in Tajakistan. Russian President Putin has reportedly stated in an interview to *Al-Jazeera* TV that "we are against the policy of pre-emptive strikes without the UN approval. But if this practice continues to be asserted in international relations, Russia retains the right to act in the same way".

Conclusion

Two of the basic justification of the Second Gulf War i.e. that Iraq had WMDs and that the Iraqi people (other than the Kurds) were eager to be liberated have not been proved right. The situation on the ground today for the common people is no better than during the Saddam era, infected with a hurt national pride, and an ineffective administration with a civil warlike situation.

The war has been won militarily but nearly lost politically. The war on terrorism has got enlarged with more Bin Ladens in the making. The Middle East appears to be heading for greater instability. American stature has been reduced and the coalition forces have got involved in a 'quagmire' from where there is no easy way out. American led forces need wider allied support and a UN mediated authority to handle the civil-war like situation in Iraq, whereas the US does not wish to hand over the mandate to the UN as it wishes to be able to influence the new government in Iraq for strategic interests. An early pull out would result in loss of face which is not in the US interest. The Americans are also attempting to split the insurgency by establishing interest groups, not only with the Kurds, the Shias but even the Sunnis. The new Iraqi Army, the Police and the Administrative authorities are also being indoctrinated with the US strategies. However, there are others who feel that the war in Iraq will never be won as there are no clear military targets and the political issues are complex. People are getting disillusioned and a civil war like situation is emerging.

In the final analysis, it is ironic that the strategy of pre-emption adopted by the US has legitimised terrorism as a heroic fight for justice. The war on terrorism has not only extended the reach of terrorists but has even glamorised them. Hence what is needed is not the American concept of pre-emption but genuine attempts to pre-empt the causes of poverty, ignorance and negative religious indoctrination that provides a continuous stream of recruits to Jehadi outfits.

There are signs now that the US is changing its foreign policy orientation because of difficulties it is facing in establishing democracy. It is advocating greater Middle East and South Asian initiatives to encourage these countries to adopt democratic institutions, economic reforms and ensure human rights. A closer

political and economic cooperation along with engagement and security arrangement is being propagated. This would involve applying pressure on Saudi Arabia to introduce democratic reforms and curb funding of Jehadi terrorism. It would warrant to pressure Syria and Iran to deny sanctuaries to the insurgents and on Pakistan to dismantle the terrorist infrastructure and finally provide incentives to the CAR countries for pursuing secular and democratic governance.

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The 'New' NATO

Ms Alyson J K Bailes

I am the Director of a peace research institute, and when the Swedish Government set up my institute exactly 40 years ago they did so largely out of concern for the *threat* to peace that was created by the existence of the North Atlantic Treaty Organisation (NATO) and the Warsaw Pact as competing military blocs in Europe. Stockholm International Peace Research Institute's (SIPRI's) main political imperative at the time, which most people would say it handled reasonably well, was to ensure that its analysis and criticism of the dangers involved was properly balanced between the two sides in East and West. SIPRI's peace research agenda has changed since the great strategic revolution of 1989-90 in Europe, and so (of course) has the Atlantic Alliance itself. This enables reflection on NATO's role in a more open-minded fashion. In that context, this article would concentrate on three quite distinct phases of the Alliance's historical development, posing questions that are either new or can be looked at now in an interestingly different way. Specifically, I will focus on the following:-

(a) My understanding of the origins and role of the 'old' NATO in the four decades from 1949-1989.

(b) The first decade of NATO's post cold-war adaptation and, in particular, the complications that developed in this period between NATO's and the European Union's roles in the broader trans-Atlantic relationship.

(c) The features, driving issues and implications of today's NATO which presents itself as a truly global military actor, and which-in the process-might be leading at least some people to associate the word 'threat' with it all over again.

'Old' NATO in a historical US/European Perspective

What we now think of as 'old' NATO was actually a great novelty when it was created. Over the previous 150 years of interaction between an independent United States and Europe,

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distance and tension between the two sides of the Atlantic were actually more frequent and typical than periods of unity or even of harmony. I can think of at least one other historical period when, very much like today, one side accused the other of being much too powerful for a proper international balance, of using military force as its preferred instrument especially to overthrow governments in other regions, of preaching democracy without practising it, and of continuing to employ torture. These were all among the accusations that the founding fathers of the United States threw against the evil empire of old-world Europe when they took up arms to try to free themselves from it and to set up a more pure, peaceful and just political system at the end of the eighteenth century. It should not surprise us that relations between the new US and the main European powers remained distanct for a long time after, and also that attitudes towards America were often a divisive matter within Europe itself!

The creation of a trans-Atlantic alliance based on permanent defence guarantees in 1949 was thus in historical terms a revolutionary experiment. It was driven by an equally unique security challenge at the end of Second World War, the need for a strong Western bloc backed by the nuclear weapons of a superpower to hold back the Soviet Union from further expanding its Communist empire in Europe. NATO's role in the Cold War was shaped by the realization that the Soviet/Communist threat in Europe was the single largest challenge, even for the US as a global power - the US's own strategic frontier lay, in a very real sense, in the middle of Germany. The Alliance responded to this prime imperative in two effective ways (at least from the late 1960s): by maintaining a strong defence backed by nuclear weapons for purposes of deterrence, but also by 'detente', meaning engagement with the other side to reduce the levels of confrontation and risks of war and to allow some practical cooperation to happen in pursuit of shared interests. It is worth noting, however, that NATO's central and omnipotent role in Western defence was strictly limited to the European theatre-it did not determine most of the things that the US did with its own forces on its own territory and in other regions, and while all kinds of direct and indirect military clashes happened in those decades between the 'West' and 'East' in other parts of the world, they were handled on national initiative or by what would now be called ad-hoc coalitions. Several European members of

NATO, of course, were also preoccupied at the time with the build-down of their own overseas empires and with the purely national responsibility to defend such territories as remained. To complete the picture within Europe, we may note that the European Union (EU) in this period operated more or less on a separate planet from NATO, focussing exclusively on non-military business, but nevertheless playing an important functional part in the Atlantic balance through its ability to talk as an equal with the US on trade policy matters.

As someone who worked personally at NATO during the 1970s, however, I would like to draw attention to some aspects of its role that tend to be forgotten now. You may well have heard the famous remark by the British statesman Lord Ismay that NATO was created 'to keep America in, keep Russia out and keep Germany down'-an extremely *realpolitik* formulation that reminds us there was not much sentimental mystique about NATO at the outset! The reference to Germany is what I would like to point to here, reminding us that NATO's designers also saw it as very much pertinent to recreating democracy and a functioning economy after the damage done by National Socialism within Western Europe itself. NATO served this goal of what might be called internal 'regime change on two counts. These include :-

(a) By preventing its European members from falling back into a nationalistic and competitive culture of defence.

(b) By providing the shield under which West Europeans could rebuild their economy while spending far less on armaments than they would have needed to do if left alone. It is true that some Southern European countries spent various periods under dictatorships of military juntas while still being counted as members of NATO, but what was important-and what I witnessed for myself in the 1970s - was how NATO membership helped to discourage and contain any internationally aggressive behaviour by these regimes and also legitimised and reinforced the new democratic governments that eventually took over. I was an eyewitness of NATO's role in containing and calming the very dangerous situation in 1975 when Turkey invaded the northern part of Cyprus. Moreover, since the world's biggest disarmament and arms control processes at the time were the ones going on

between the US and Soviet Union and their respective alliances in Europe, NATO was quite a school of arms control expertise and it was, in fact, while working as a UK diplomat on the former Mutual Balanced Force Reduction (MBFR) negotiations that I myself got my first grounding in 'peace' issues! I am stressing these points not so much to idealise the 'old' NATO, but to remind us to ask whether a similar, 'softer' and more ethical side to the Alliance is still in existence or indeed, is possible today.

Three New Agendas Since 1989

The changes which make that question necessary were triggered first of all by the collapse of the Warsaw Pact and the Soviet Union in 1989-90. At first many experts thought that NATO also might just fade out of existence when the removal of the great European threat made it redundant, and/or when the lack of such a clear uniting force caused its members to drift apart. Those who expected the Alliance to continue saw it evolving rather fast into a more political than military organisation, with a very wide membership which could even embrace Russia like a more Western-flavoured Organisation of Security and Cooperation in Europe (OSCE). Of course all these precisionist were wrong, and what made them wrong was the continued domination of the US and West European thinking by a new set of severe security problems that moved up to take the place of the Cold War threat. There were actually at least three major and successive shifts in the Euro-Atlantic security agenda rather than just one: the first two of them gave new meat for NATO to chew upon, and helped it repeatedly to renew itself, but all of them pushed the Alliance towards a new European and international niche which I would argue was narrower, not wider, than its original one.

First, the whole decade of the 1990s in Europe was in retrospect dominated by the twin themes of *Crisis Management* and *Enlargement.* The former agenda was shaped by the wars on NATO's doorstep in the Balkans but also by good and bad Western experiences abroad (eg in Somalia), in all cases pushing towards a growing demand for military forces specialised for robust long-range interventions and for new forms of civil-military co-ordination in multi-functional operations. The enlargement agenda included two waves of very significant expansion of NATO's membership

and territory into Central Europe, where it once again became a teacher and a guarantor of democracy and of the cooperative approach to defence, but it also involved the tough conundrum of how to maintain a stable and non-zero-sum relationship with Russia while the latter was not and in practice could not be a candidate. History should, I think, conclude that despite some very difficult passages with both the US and Russia around the mid-1990s, the striking feature was how well NATO adapted to these tasks: managing to maintain its unity and *raison-d' etre* through change in spite of change or by resisting it. At the same time, the division of labour between NATO and EU started gradually to shift during this period and became more complicated.

The EU also engaged in enlargement and building new relations with Russia, and because of the nature of the integration process, joining the EU actually involved deeper transformations and new relationships than in the NATO case. Through NATO enlargement, the US might be creating new members and neighbours in Europe, but the American people did not actually have to live alongside them and open their frontiers and potentially their jobs to them as the Europeans did!

At the end of the period and after the practical and political frustrations felt by Europeans over their performance in the Kosovo crisis, the EU decided to launch its own military crisis management capability that might also be used independently from NATO in the framework of the so-called new European Security and Defence Policy (ESDP).

At the higher strategic level, the fading of shared military threats in Europe started to make Europe less of a defence priority for the US and military and defence affairs generally less of a priority for Europe: thus the *relative* part that NATO played in the thinking of each side was bound gradually to become less dominant.

Finally, we should note that crisis management tasks outside Europe in the 1990s were still met without using NATO, though the EU did get involved in some of the related crises with mediation, aid, sanctions etc.

From 11 September 2001, the Euro-Atlantic focus shifted quite sharply to the *Global New Threats* of terrorism, Weapon of Mass Destruction (WMD) proliferation and related issues like financial

crime, travel safety, controls on technology transfer and trade. The implications for the Alliance were symbolised by the pivotal events when NATO invoked Article 5 of the Washington Treaty on 12 September 2001 to show that the other Allies were ready to help the US just as in a Cold-War attack; but the US declined to take up their offer in any practical way. More starkly than at any time in the 1990s, it became clear that :-

(i) *NATO was no longer central* to US-Europe interactions as a consensus - and policy-forming forum.

(ii) That the *instruments* NATO could offer, while turning out to be highly relevant, for example, pursuing operations in Afghanistan after the US's initial coalition attack, were *essentially military and operational ones* growing out of its long-term defence role and assets.

NATO does not have the resources and legal competencies to handle the wide range of internal ('homeland') security measures and travel security measures required in the new threat environment; or to implement technology transfer and export controls and other solutions for specific proliferation dangers; or to be the channel for the Western community to interact with other world powers and groupings affected by the new agenda. The EU does at least in principle have all these possibilities, and it started to develop them after 2001 both for the purpose of negotiation and cooperation with the US (notably on homeland security and travel and trade controls), and to protect its own security interests. As a result of this, the action now has largely moved outside Europe (to Afghanistan and Iraq), the main flow of US/Europe policy interactions (whether negative or positive) in 2001-5 went either through US-EU channels- in the process highlighting the inadequacy of the latter or through fora with wider participation by world powers such as the UN Security Council and G8. (I would argue that the same was very broadly true of US-Russia interaction).

Of course, this story would not be complete without dwelling on the *major splits* of 2002-03 both among Europeans, and between the US and Europeans in general, over various aspects of the Iraq affair and especially the coalition invasion of March 2003. In retrospect, we can probably judge that these had less overall impact on the EU than NATO mainly because :-

(a) The US's new preference to use 'coalitions of the willing' for the most urgent military tasks was taking potential work away from NATO, not the EU.

(b) The EU had too much other business going on - forcing the Europeans to keep on working together willy-nilly-that was neither dependent on Atlantic relations nor linked to the new-threats agenda. After March 2003, moreover, the EU's leaders went through a very public process of pulling themselves together as they realised that neither the opposers nor the supporters of the Iraq invasion had made any material impact on the way the Americans played things, and that Europe could only expect to have influence in future if it could find its own agenda and push it collectively. The results were the EU's first-ever *Security Strategy Document,* a separate strategy on WMD and the opening of the European negotiations with Iran, several additions to the machinery of the ESDP including a defence industrial agency the European Defence Agency (EDA), and an independent EU peacekeeping operation in the Democratic Republic of Congo, among others. I would argue that although NATO also pulled itself together with some success by end-2003 to focus on the International Security Assistance Force (ISAF) operation in Afghanistan, the new start at NATO HQ was neither so political and comprehensive in character nor, perhaps, so irreversible as what was going on in all the EU organs. At the same time, however, we should note that the *enlargement* agenda including the Russian angles continued to be handled quite smoothly by both institutions, and in particular with little US-European friction. In retrospect, we may theorise that the Big Bang enlargement completed in 2004 was actually made inevitable by the 11 September 2001 crisis - inasmuch as the new threats created an obvious logic for building a single, largest possible integrated community of States in Europe to deal with *all* the continent's security challenges, and also gave Russia a rationale for continuing to work with the West on overarching common interests.

Since 2004 in particular, new or renewed attention has been drawn to a third layer of the security agenda: the *threats to Human Security* that may not be, or are only partly, man-made but have great and widespread destructive power. Epidemics like AIDS, SARS and bird 'flu', natural disasters (tsunami, hurricane,

earthquake), larger climate change processes, problems with supply of energy and other strategic commodities, and possible infrastructure breakdowns became an important component of security discourses. The last years have also seen a gradual turning of attention back to the problems of non-European conflict and their linkage with underdevelopment, 'weak state' phenomena and so on (the word Darfur is a sufficient symbol). The institutional implications may be noted very quickly here because it is evident that NATO does not have a role other than providing military assets where relevant, as it did just now for earthquake relief in Kashmir or in logistic support for African Union (AU) troops in Sudan. On the other hand, human security problems that both emerge and impact hardest in the social and economic spheres are right in the middle of the EU's permanent agenda, and all pressures are now pushing the EU to treat them more consciously as security issues and to develop more effective joint positions on them. (The crisis of January 2006 over Russian gas supplies through Ukraine is one good example, leading as it did within days or even hours to a call for a united and hard-headed EU 'energy security' policy.) The latest new agenda even has repercussions for the EU's own defence personality: the renewed focus on non-European conflicts is leading the EU to make more and more types of crisis interventions outside its own security zone (eg in Aceh, Georgia, Moldova and on the border of the Gaza Strip) - at the same time as NATO has passed most peace operations in the West Balkans apart from Kosovo Force (KFOR) over to the EU so as to free its own capacities for new global tasks. Lastly, the logic and pressure for the US and Europeans to cooperate on this whole 'human security' agenda is overwhelming - not least because the good answers very often involve the principles of good governance that both sides share - but sometimes their approaches coincide very closely, other times they have to negotiate from clearly different starting positions (e.g. on the Kyoto process or birth control, or on the role that arms control and disarmament may play). In either case, for none of these issues does the line of Atlantic management go through NATO.

The question of what has happened to the classic NATO function of ensuring the direct defence of Europe itself is pertinent to understanding NATO's changing role. What seems clear is that NATO is not actively planning for or engaging in it any more. NATO

command HQs have been cut down and have lost their geographical character so that there is just one big one for operations (now meaning operations abroad) and one for innovation (which means becoming better prepared for operations abroad). NATO does very few exercises and those it holds in Europe are based on counter-terrorist or similar scenarios. There is actually no general NATO military plan for war on European territory any more. As you may know, the US forces in Europe are being further cut and moved Southwards and Eastwards with the main view of being able to reach non-European theatres quickly; and there are no foreign forces or nuclear forces at all (in peacetime) on the territory of all NATO's new members including the Eastern part of Germany. For all these and other reasons, the new Allied countries (and any others still to join) are having nothing like the original NATO experience of direct and permanent military integration including American and Canadian comrades on Europe's own soil. The politically influential Article Five exists but if some had reason to doubt even in the Cold War whether Washington would always and automatically risk the US to save Europe from any kind of attack, the reasons for questioning that are surely much greater now! None of this would matter if we were sure that the European homeland will never again face a direct or indirect attack from State enemies, and also that European countries need no more education in how to keep their defence culture democratic and denationalised. The fact is that quite a lot of Europeans, notably in the East and North, don't actually feel anything like certain about those points yet. The question therefore hangs over us of whether the EU needs to and will eventually move more openly into the role of a direct, military defender of its own territories; followed by the very big question of whether it could ever play that role credibly, and if so how - including the question recently highlighted by President Chirac of European nuclear deterrence!

Today's NATO: World Policeman, or...?

While concentrating on NATO's present posture and ambitions, what I find rather striking is how relatively narrow this set of questions are. It is no longer NATO's role on which we pin our hopes or our criticisms as to how President Putin is to be handled, or how the cause of disarmament might be rescued, or how anti-democratic, xenophobic and populist tendencies within Europe's own societies are to be checked. That is a real change from 55

years and even from 15 years ago. I do not mean here that the Alliance is necessarily doomed and dwindling away, but rather that it plays an increasingly specialised albeit vital and forceful role in the spectrum of Western security instruments.

The potentially global military role that NATO has undertaken since its Ministers approved a policy document in mid-2002 has ended any kind of geographical limit on its activities. We have seen that its actions in this respect can range from tough 'peace enforcement' of the Kosovo and now potentially the Afghanistan type, to the more moderately challenging peacekeeping that Stabilisation Force (SFOR) until recently did in Bosnia-Herzegovina, to purely humanitarian interventions as in the Kashmir earthquakes and indirect help to other peacekeepers as in Sudan.

Will and Resources?

This set of examples shows that all NATO's members have been able to agree on a meaningful number and variety of military missions that they want to carry out in the Alliance framework: even under the two Administration of George W. Bush when important forces in Washington have been pressing for the use of ad hoc coalitions in preference to any fixed multilateral grouping. In Afghanistan, less than two years after launching a war on the Taliban with only a picked handful of partners, the US was urging NATO to take command within the resulting UN peacekeeping operation (ISAF). Now, two years further on again, it [is using] every kind of pressure to get the Netherlands to put more troops into ISAF and, as we know, it would like this NATO operation and its own remaining warlike operations against Al-Qaeda to be bound together under a single command. It is fair to see this as one piece of evidence that the extreme 'de-institutionalization' of US intervention policy that was once called for by Defense Secretary Rumsfeld has not proved lasting or consistent, and perhaps was never really sustainable. On the other hand, we should note that both in Afghanistan and Iraq the US has turned back to multilateral institutions for what might be called the 'cleaning-up' phase after taking the initial and sharper action essentially on its own responsibility. In the case of Afghanistan, there was a strong consensus in Europe and, indeed, elsewhere that the task of clean-up and consolidation was a worthy and justified one; but as you will have noted, in the case of Iraq many Allies essentially refused to come in and do the US's 'dirty work' so that NATO's only current

collective commitment there is for a military training programme carried on partly outside the country.

What is the general lesson of this for NATO's future? In practical terms the Alliance undoubtedly remains the world's best institution to launch tough, strong and rapid military action, whether for the extended self-defence of its own members or to meet the international community's needs for enforcing and keeping the peace. Against the background of (at least) current US policies, however, it seems to me that we cannot feel very certain about the following issues which include :-

(a) Whether the US will ever consider using NATO again for the first phase of action against what it sees as an urgent and present danger to American interests.

(b) Whether all the Allies would agree with Washington on the need and justification for the use of force in the given situation.

(c) If the US uses a coalition instead and comes to NATO later for the cleaning-up phase, whether the other Allies' reaction will be more like the positive one in Afghanistan or the very reserved one in Iraq.

Of course, even if we took a pessimistic view on all these points it would still be possible for NATO to take on actions of the humanitarian kind as in Kashmir or Darfur; but here I would recall that the services it can offer are limited to the military side while the EU, for example, can also offer police and aid workers, economic and technical inputs and political mediation. Moreover, enough of NATO's cold-war image still remains to make it a very tricky proposition to consider using it in the former Soviet area or even in the heart of the Middle East, so that it is no wonder we have seen the EU being approached instead for tasks on the borders of Georgia and the Gaza Strip, and prospectively in Moldova.

I may more briefly mention the practical worries about the ability of European Allies to make the contribution necessary to mount successful missions alongside the US in a NATO framework. There are several levels of this problem, starting with the famous trans-Atlantic technology gap that is still widening overall and that poses obvious problems for inter-operability. However, NATO has made progress since 2002 in planning for a very tightly focussed

and integrated set of US and European units to work together in the specific context of the NATO Reaction Force (NRF); and in the medium term it is intriguing to wonder if the US itself may return to the idea of more modest and 'appropriate' technology as a result of the lessons about the vital human component of peacekeeping that the US Army has learned in Iraq. Probably a bigger problem in the near term is the sheer lack of available and qualified forces in most European NATO nations, partly because some of these nations have been too slow in reorganising their defence structures for the new 'expeditionary' tasks, but also because so many European troops are tied down already in quite large EU operations in the Balkans, in UN peacekeeping missions, in Afghanistan and–for the European members of the coalition–with the US in Iraq. The Supreme Allied Commander in Europe (SACEUR) and other US generals are starting to get acutely frustrated with what they see as European reluctance and delays, and SACEUR has been arguing that NATO should have something more like a pool of pre-assigned forces always under central command and with central funding so that they can be sent off in urgent cases without need of separate national decisions.

That sounds like a logical way forward but, as an outsider to the current debate at NATO HQ, I can see some pretty large problems with it. NATO has always been an inter-governmental not a supranational organisation and even in the Cold War its nations would have had to give their separate consents for war against the Warsaw Pact. Why should its nations throw away their power of free decision now when their numbers are larger and their interests objectively more diverse than ever, and when the tasks being proposed are not actually in the shared defence of their own territory but of an optional or ad hoc kind in probably some quite different region? And how could NATO's limited central bureaucracy be trained and trusted to manage such important common resources when it lacks all the apparatus that the EU has painstakingly built up in the European Commission and Court of Justice, with at least some democratic supervision by the European Parliament, to ensure the honest and transparent stewardship of collective funds? (Not that the EU itself has yet succeeded to anyone's satisfaction in that)

Law and Legitimacy

The underlying problem here is one that also brings us back

to the question of NATO's authority and legitimacy for action in the world at large. Unlike the EU, NATO does not make laws for its members, so that it could not (for instance) solve the problem of consent for the use of a central force pool by getting its members to reach a formal legally binding agreement in advance on the conditions that would apply. In the Cold War, it never occurred to us to see the legal basis for NATO action as a problem because the one kind of action it was preparing for was the direct defence of its own members' territory against an attack, a cause clearly covered and legitimised by Article 51 of the UN Charter. Today that is the one thing that NATO's forces are *not* designed for, and when they go out to act on other people's territory they have to face the same question as any other organisation would be asked: where is its legal base or international legal mandate?

If NATO is requested to help as in Darfur or if the UN provides a mandate as in Afghanistan, there should be no problem. In 1999, NATO's action against Serbian forces in Kosovo and against Serbia-Montenegro itself did not at first have a UN mandate but was justified by the Allies as a sort of combination of response to potential genocide, extension of existing peacekeeping responsibility in former Yugoslavia, and even the extended self-defence of European territory. If a similar case happened outside Europe's own frontiers, however, I am not at all so sure whether people both inside and outside NATO would be equally accepting of the Alliance's right to use deadly force. We come back here to the same question I was posing in a more political context just before; will the US want to wait for a UN mandate before using NATO against what it sees as a real security threat somewhere out in the world; but if it doesn't wait, will the other Allies agree to let NATO's flag and name be attached to the action? It seems to me that this question is unresolved for the moment and as long as it stays open, there is reason both for NATO's friends to worry about its future and for some people out in the world to worry about NATO itself. As my last word, however, I would note that the even bigger issue behind this one is the failure of the world community to agree on a definition of what is legitimate and non-legitimate today in the uses of military coercive power beyond Article 51; and while the story of last year's UN Summit makes clear enough why states should be divided over this, the fact that they are is a very serious matter not just for the future of NATO but for world peace in general.

My Experiences in China

Mr Dominique Dreyer

Two preliminary remarks.

(a) Views expressed in the article are entirely my own and do not, unless specified otherwise, reflect in any way the official policy of my country.

(b) Being a diplomat of a small Western European country that has a long tradition of neutrality and no colonial past, I realize that the way I look at China may be quite different from that of people belonging to a vast country that is not only a neighbour of China but has had also a very chequered history in her bilateral relations.

1974 to 1978

I had the privilege to be assigned in China for 16 years altogether, at three different, but quite significant periods, in the recent history of China. This enabled me to have some insight in the developments of China.

I propose to describe briefly my impressions derived from my three assignments in China. Based on this experience, I would like to draw some historical considerations that seem to me of relevance in explaining the present situation of China, especially her rapid development in the last twenty-five years. Finally, it may be of interest also to try to speculate about China's future development, especially seen from the political angle.

My first stay in China started in September 1974. Conscious of the need to train some diplomats in so-called "difficult foreign languages", the Swiss Foreign Ministry had sent me previously to England to attend a nine-month crash course in Chinese. Arriving in Beijing after a long flight that took me through Dubai to Karachi with Swissair, and then with Air France to Beijing, I was plunged in a country that looked quite different from all others. It was my first assignment abroad. My linguistic abilities in Chinese were still limited. I had no friends there. Beijing resembled a huge village

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with few modern buildings. I still remember my first evening, strolling along the lanes close to my hotel, surrounded by a crowd of faces staring at me as if I came from another planet, and me looking at them as if I had actually come to another planet.

In 1974, China was in some way recovering from the excesses of the so-called "cultural revolution". It was still a closed country, where any foreigner was regarded as highly suspicious. If he came from the West, as I did, he was a capitalist, implicitly an enemy of socialism in the Chinese sense. If he came from a socialist State, meaning from the Soviet Union or one of its satellite, he was regarded as a "revisionist", an enemy of the dogmatic version of Marxism-Leninism that China had adopted. If he came from the "Third World", he was most likely to be from a poor country, supposed to be a friend of China but too poor really to matter. Private contacts with foreigners were basically forbidden, or, when they could not be prevented, strictly controlled. Foreign culture was forbidden, except for a few foreign music or artistic troupes that were allowed from time to time to tour China and perform before selected audiences for the sake of pretending to entertain cultural links with the outside world. Needless to say, news media were practically inexistent, being replaced by official propaganda. Around Beijing, there were limits beyond which foreigners were not allowed to go. The destinations in the country that were accessible to them and to foreign tourists were limited to two or three dozens. There was no way to know how people lived, or what they were thinking, if they would risk at all to think anything different from the official line as delivered daily by the party and by the state propaganda.

Foreigners were very few in China. In Beijing, excluding a small group of long-time foreign friends of the Communist party, you had a few hundreds of diplomats as well as a few dozen of foreign journalists. Foreign experts would be assigned in remote places in the provinces for the construction of a few industrial projects. Their sense of isolation would be even greater than for the diplomats in Beijing. And then, you had the foreign students: in 1972, the Institute of Foreign Languages started recruiting foreign students, having closed in 1966 at the beginning of the "Cultural Revolution". Strangely enough, foreign students had to share their room with a Chinese student, a way probably to have better control of the foreigner, but which enabled some of these foreign students

to get a rare insight into the life of the ordinary Chinese people, and even to forge true friendship with their appointed chaperon.

The regime could of course not keep the country completely immune from foreign news and information. It needed some information on scientific progress. Applying a policy reminiscent of the late Imperial China's attempt to let foreign science and knowledge in while keeping Western Barbarians out, China started, after the years of the "Cultural Revolution", contacting foreign experts and foreign scientists after the years of the Cultural Revolution. Information from international news agencies was circulated among the higher spheres of the leadership in two restricted confidential publications.

The control of the population had reached a level unprecedented in the history of China. The rigorous application of the system of "hukou" prevented the rural people from entering the towns. The urban workers were all employed in state-owned enterprises, and these enterprises in turn were under the direct control of the party. Thus, loyalty to work meant loyalty to the party and, more often than not, loyalty to the local party secretary.

In 1974, China was embroiled in a severe political crisis. The impending succession to Mao Zedong intensified the struggle between the reformists gathered around Chou En-lai and the group that was propelled to power by Mao Zedong during the "Cultural Revolution", a struggle that had started with the death of Lin Piao in 1971 and the return to power of Deng Xiaoping in 1973.

A number of political campaigns were launched by the propaganda apparatus, in the hands of the "Cultural Revolution" faction against Chou En-lai, the most significant one being the so-called "*Pi-Lin Pi-Kong* campaign" (Criticize Lin Piao, criticize Confucius). In October 1975, a new campaign was launched which, under the pretext of denouncing a "revisionist" trend in the education policy, was in effect an attack against Deng Xiaoping. The death of Chou En-lai in January 1976 brought the struggle between the two camps to a new level.

The year 1976 - incidentally, a year of the dragon, if we go by the Buddhist astrological calendar - was probably one of the most extraordinary year in the recent history of China: the

appointment of Hua Guofeng as successor to Chou En-lai, whereas it was widely expected that this post would be taken up by Deng Xiaoping, was the clear sign of a deep division inside the leadership. In April 1976 came the official announcement of Deng Xiaoping's fall from power. Then came in July the death of Zhu De, vice-president of the Republic, one of the founders of China's army. At the end of July 1976, an earthquake devastated the town of Tangshan, causing the death of 230,000 people. On 8 September 1976, Chairman Mao died. One month later, his widow Qiang Sing and three of her closest associates, dubbed the "gang of four", were arrested in an operation that was nothing else but a real "coup d'etat", an event that took China and the world by surprise.

Almost immediately, the policy of the Communist party took a new turn: it was clear that the "cultural revolution" was definitely finished and that the excesses of an extreme dogmatic policy were to be corrected. The leadership concentrated its efforts first on putting some order in the economy and on rebuilding the educational system devastated by the ten year of the "Cultural Revolution".

The following year, in July 1976, Deng Xiaoping was officially rehabilitated, and although he never held, in later years, any official government function other than that of Head of the Military Commission, he became *de facto* the new leader of the Communist Party. And so we come to the decision of the Central Committee in December 1979 to set up a number of economic and political reforms, a decision that is the starting point of the 25 years of development China has since gone through.

Deng Xiaoping's Reforms

The role played by Deng Xiaoping in the modernisation of China cannot be overstressed. It was not expected that a Communist leader whose whole life had been devoted to serving a Marxist-Leninist party could bring about changes of such magnitude, to lift China out of stagnation, to instill a new vision into the Communist party, and to change so completely the lives of one fourth of mankind. It could not be expected that he would bluntly propose an economic policy that meant the abandonment of dogma based on the state distribution system and on total control of the economy by the state, an economic policy that

advocated the transition towards an open market economy, enabling China to benefit from all the advantages of international trade and foreign direct investments.

These reforms started with the liberalisation of the rural economy. By allowing peasants to produce freely their own products on the private plot allotted to them, by allowing them to sell freely on public markets, by privatizing the use of land, agricultural production jumped rapidly, and in a matter of a few years, the shortage of food that was plaguing China until 1978 was basically resolved.

And contrary to widely-held belief, the reform policy instituted by Deng Xiaoping meant not only economic reforms, it also brought about the rebuilding of a shattered judiciary, the concept of rule of law, the opening of China to foreign ideas, foreign news, and foreign culture. As regards foreign policy, China initiated a new strategy towards Taiwan, started negotiating with Great Britain on the status of Hong Kong, and embarked on an improvement of her relations with the Soviet Union. The establishment of formal diplomatic relations with the United States in 1979 had an immense impact for China's image in the world, particularly in the West, enhancing at the same time the image of the United States in China.

1984 to 1988

I missed many of these developments, since I left Beijing in May 1978 to take up my assignment in the Foreign Ministry in Bern. I was assigned again to China in June 1984 as Deputy Head of Mission until August 1988.

What was most striking during that period was the enthusiasm that could be perceived in China for the new orientation the country had taken. It was also remarkable to notice the personal freedom to speak that the Chinese people had started to enjoy. Although there was no freedom of speech or freedom of publication the way we would know it, yet the official publications had taken on liveliness and were dealing with a range of topics that were unprecedented in the history of the People's Republic. Basic problems like the independence of the judiciary, of the theory of the separation of the three powers were widely discussed in a number of publications in 1985 and 1986. Economic reforms were going on, although it

was apparent that this policy was creating new unforeseen problems. Further liberalisation was pursued, creating tensions inside the inner circle of the leadership.

During all that period, the development of reforms in China attracted a wide attention everywhere, and especially in the so-called "socialist camp". I have no proof to substantiate it, but it is my feeling that the Chinese experiences initiated by Deng Xiaoping had a wide impact in the Soviet Union and in the Eastern European countries.

1995 to 2004

In November 1995, 1 took my third assignment as Deputy Head of Mission in Beijing until January 1999, and was appointed Ambassador in China until October 2004.

Having left China only seven years before, I was again amazed by the changes that took place during these intervening years. Most conspicuous was the development of private enterprises and private shops. The first private restaurant in Beijing opened in 1983 or 1984. Ten years later, private restaurants were everywhere. Private enterprise was not only restricted to small entrepreneurs. Big private companies and rich capitalists had begun to emerge. At the same time, China had embarked on a very ambitious programme of infrastructure development. The opening of China to foreign investments was bearing fruits, with China becoming the "factory of the world".

This period was, and is, overshadowed by what I would call the "Tiananmen syndrome". The political crisis that led to the events of Tiananmen in May and June 1989 had left a deep mark on the Party. The realization that economic progress could be impaired by political upheavals and politic dissidence has led the Communist Party to consider almost as a dogma that strict control of the media and of political dissent is the only way to enable the economic reforms to go on. The monopoly of power of the Communist Party was inscribed in the Constitution by Deng Xiaoping in the early 1980's already, and there is clearly no intention now to allow the power of the party to be weakened. On the other hand, the party has made determined efforts to improve the recruitment of new members, the appointment of higher cadres, the training of senior officials. Party schools and think tanks do

have lively discussions on many aspects of modernization of the party. But clearly, there is no let up in the vigilance of the leadership against any form of dissidence or of uncontrolled political organizations.

"Quand la Chines'e veillera, le monde tremblera"

There is a famous saying in French, attributed for more than 100 years, although without proof, to Napoleon that says: *"Quand la Chines' eveillera, le monde tremblera":* when China will wake up, the world will tremble. Obviously, what was unthinkable 30 years ago when I took up my first assignment in China has now taken place: China has obviously woken up from a century-old sleep. Is the world trembling? I would say yes, seeing the reactions that are caused by the awakening of China. Has it reasons to tremble? Let me give some of my views on that point.

It is debatable whether China is or not the oldest civilisation that flourished on our planet. Yet it may safely be said that it is the country with the longest political continuity. In the last 1500 years, dynasties have emerged, have been at war, have disappeared. But the number of years of division was never greater than the years of unity. And Chinese culture is most concerned with history.

China did not wait the Xth Century to be subject to foreign influences or even to foreign rule. But 1842 saw the first main intrusion by European powers, and this date remains in the view of the Chinese the departure point of Modern history. From 1842 to 1911, Chinese history is one of mounting crises caused by internal decay and outside encroachments, leading finally to the downfall of a monarchical system that had a history of at least three thousands years. 1911 was a revolution, a political one. It was followed by a true cultural revolution in 1919, when the young intellectual elite decided a number of reforms, the main one being to jettison the old classical written language and to use instead, in writing, the colloquial language. Then came the Japanese invasion, the Second World War, the Civil War, and the second revolution: the People's Republic of China. During all those years, the history of China was a history of tragedy and missed opportunities. Viewed in this context, the reform policy of Deng Xiaoping has to be regarded as the third revolution in the modern history of China, a revolution that enabled China to dream again of reaching the ranks of the foremost countries in the world.

Whatever the shortcomings of China's economic policies, few would put in doubt its overall success. The question that remains to be explored is: How was this possible? And how was it possible to transform a country from a closed Leninist type of economy to the kind of dynamic and ebullient force it has become?

In my view, we should first go back to history and explore the kind of national subconscience that is at work in modern China. China possesses, in my view, a number of characteristics that distinguishes it from similar big states:

(a) As a culture, it has a fairly long, continuous and homogeneous history, which manifests itself probably most significantly in the continuous use of the same written language and script throughout three to four millennia. At the same time, it is a culture which has from very early on laid great stress on the writing of history, giving it sense of history which explains many of today's political attitudes of China's leadership.

(b) This continuity in history produced a fairly stable political system based on the hereditary dynastic system as well as on a fairly rational and coherent administration based on the recruitment though examination: in other words, the bureaucracy was fairly open with a strong bias favouring talent rather than connection.

(c) China was surrounded by countries the culture and power of which could not really compete with its own civilisation. Although the Chinese dynasties were more than once defeated by adjoining rulers, the invading powers were soon sinicised and adopted the Chinese ways of government and administration.

(d) China had practically no contacts with the West until the beginning of the XIXth century. The constant encroachments of Western powers in China after 1842, coinciding with the growing weakening of China's political power, resulted in the awakening of nationalism and finally in the downfall of the monarchy in 1911 under the pressure of the young westernised Chinese intellectuals. 1911 was thus the first great revolution that China witnessed in modern history. An

attempt to introduce a parliamentarian system on the western model failed, and no party could fill the ensuing political vacuum. Local military leaders took power in their respective regions, leading to a division of China. The country fell in turmoil. The Japanese invasion gave rise to a new wave of nationalism. After the Second World War, the rise of the Communist Party and the Civil War led to a second revolution, with the victorious Communist Party setting up the People's Government and transforming the whole society of China through nationalisation and the economy and collectivisation of agriculture. Throughout the first part of the last century, nationalism was certainly one of the main driving forces of the Chinese elite. No doubt that the same force was driving a man like Deng Xiaoping, urging him to use all means available to push China towards the realization of a century-old dream, to become again the powerful and advanced country it once was in the past.

In some respects, the Communist Party has managed after 1979 to take on the traditional role that was the one played by the imperial bureaucracy. This tradition explains also the respect and regard that Mao Zedong still enjoys in the population at large. This tradition should also help us to think about the question of democracy in China. It will be up to the Chinese people to decide whether an open market economy can work properly for long with a closed political system dominated by a party that keeps itself immune from democratic control.

The dynamic action that Deng Xiaoping set into motion with his reform policy came after almost two decades of turbulences if not of violence. By lifting the strictures that prevented all forms of private enterprise, he enabled within a few years a significant lifting of the livelihood of the peasantry; the development of light industry everywhere improved the living standard of the people considerably, to the extent that now a real middle class in the major cities of China is enjoying a level of comfort that can be compared in some respect to that of European low middle-class. This explains also that with all its drawbacks, the policy of economic development forged in the 1980s could be attractive enough to have the population accept its disadvantages with an endurance that would otherwise not be possible.

What about the future?

What about political stability? Will the party remain in power? Will it be able to upkeep law and order in such a vast country?

China is certainly ridden by numerous internal tensions. The divide between rich and poor is widening. The gap between the East and the West of China is increasing. Does this necessarily lead to political turmoil? From the beginning of the reform policy in 1979, there have been no few cases of troubles and disorder in many places of China. Many cases of organisational disfunctioning have been exposed, not to speak about corruption. Yet, we should not forget that the new economic policies have brought about a significant reduction of the level of poverty. More than hundred million rural workers are jockeying for jobs - badly paid though they may be - in the booming towns of Eastern China, whereas their fathers were stuck in their villages surviving on subsistence agriculture. The Communist Party has managed to get through a number of important political crises, the most obvious one being Tiananmen in 1989. It has been able to put into place a coherent policy for economic development. This policy would not have been possible without a strong leadership and a stable political environment

It is remarkable that from the time of the Tiananmen events up to now, no new political crisis of such an extent has taken place in China. There are certainly some economic factors that made this possible. In particular, control of inflation, which was fairly high in 1988 and 1989, has helped to prevent a popular explosion of this extent. But the absolute control on the media and public expression of dissent could also have played a role. There is a clear perception within the Chinese leadership that a weakening of the party can only produce dissent and disorganisation, affecting at the same time the economic development. This perception seems to be fairly largely shared. The feeling that a "weakening of the Centre" might bring chaos seems widely shared in China and could well result from the trauma that the "cultural revolution" has produced in the collective psyche.

In the long run, the future of China will be determined not really by the local tensions and the main divides between the various regions of China, but more by the way China will be able to handle problems like access to energy, control of population

growth, development of the rural economy, development of social security, protection of the environment. All these problems will test the ability of the political system to adopt practical policies and also to adjust itself to the needs of the younger generations.

Experience shows that it is always presumptuous to make predictions. But in order to predict the future, we have at least one yardstick: the past, especially the developments of the last twenty years. And if we do project this past on to the future, there might at least be one conclusion: the Chinese can have some good reasons to be fairly optimistic as far as their future is concerned.

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Malaysia's Foreign Policy

Mr Dato Zulkifly Bin Ab Rahman

At the outset, I wish to mention that Malaysia's foreign policy has always been pragmatic, independent and principled - putting national interests at the forefront while balancing them up with principles, norms and laws governing international relations. As an extension of domestic policy, Malaysia's foreign policy has, therefore, been designed with the purpose of defending and promoting the country's national security, economic and other vital interests. Malaysia is multi-racial, multi-cultural and multi-religious country where survival and economic development depend on racial harmony and political stability. It is also a small trading nation that depends on a peaceful and just international order. Since independence in 1957, Malaysia's foreign policy has been premised on the following fundamental principles:-

(a) Mutual respect for the independence, sovereignty and territorial integrity of nations.

(b) Mutual non-aggression and non-interference in the internal affairs and peaceful settlement of disputes.

(c) Peaceful co-existence and mutual benefit in relations.

Foreign policy of any country has to function in a dynamic environment. Malaysia's foreign policy is no exception. Various geographical, historical, social and political determinants contribute to shaping the nature of Malaysia's foreign policy and the conduct of the country's international relations. Added to this is the external environment, or what may be termed as the systemic determinant, which becomes increasingly important with the advent of globalisation and in the wake of the era of communication and information technology. But the basic objective remains the same, i.e. the pursuit of Malaysia's national interests.

A closer look at Malaysia's foreign policy since 1957 would show its steady evolution characterised by notable changes in emphasis, which took place with changes in Malaysia's political stewardship.

Mr Dato Zulkifly Bin Ab Rahman is High Commissioner of Malaysia to India. Excerpted from a talk given by His Excellency at the USI, New Delhi on 12 January 2006.

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A markedly anti-Communist and pro-Western posture with close links to the Commonwealth under Tunku Abdul Rahman, our first Prime Minister, gave way to one based on non-alignment, neutralisation and peaceful co-existence. Under his successor, Tun Abdul Razak, as a member of the Organisation of Islamic Conference (OIC), Malaysia began to identify itself as a "Muslim nation". The search for new friends substantially increased the importance of Non-Aligned Movement (NAM) to Malaysia. Investments from other than British sources began to be welcomed. A period of consolidation ensued under the third Prime Minister, Tun Hussein Onn with Association of South East Asian Nations (ASEAN) becoming the cornerstone of Malaysia's foreign policy following the collapse of Saigon (now Ho Chi Minh City) in 1975, the withdrawal of the US military presence from Southeast Asia and the invasion of Kampuchea (now Cambodia) by Vietnam.

A more dramatic shift occurred when Dr Mahathir bin Mohammad took over as the fourth Prime Minister in 1981. Malaysia's foreign policy stance began to take a much greater economic orientation than ever before, coupled with a strong and nationalistic defence of the rights, interests and aspirations of developing countries and advocacy of south-south co-operation. Numerous new initiatives were undertaken by Dr. Mahathir during his premiership. These include :-

(a) Antarctica as the common heritage of mankind.

(b) The look east policy (LEP).

(c) Reverse investment.

(d) East Asia Economic Caucus (EAEC).

(e) Group of 15 (G15) - ASEAN Mekong Basin Development Co-operation.

(f) Islamic Unity.

(g) Championing of the cause of developing countries on major issues like environment, human rights and democracy.

The evolution of Malaysia's foreign policy under successive Prime Ministers reflected a pragmatic response to the geopolitical and economic changes of their times. But whilst change has become a general feature of Malaysia's foreign policy, continuity

has also been evident. Both the change and continuity mark a higher level of confidence and maturity the country had acquired in the conduct of its international affairs.

With the attainment of independence, strenuous efforts were made by Malaysia to build friendly relations and promote various areas of cooperation with like-minded countries, particularly those like India whose leaders had been working closely with our leaders in the pre-independent Malaya. As the country's international stature began to grow, more diplomatic relations were established with other countries including the newly independent nations. Today Malaysia has 110 diplomatic missions throughout the world including all countries of Southeast Asia.

Malaysia attaches great importance in having good working relations with countries in the region of Southeast Asia. Bilaterally, cooperation continues to expand in areas such as trade and investment, education and human resources development, science and technology, culture, and tourism. A constructive approach had been taken to resolve outstanding problems including those related to overlapping claims and determination of land and maritime boundaries. Diplomatic efforts are made to ensure that bilateral relations do not get adversely affected with our neighbours. Agreeing to refer the overlapping territorial claims that Malaysia has with Indonesia and Singapore to the International Court of Justice (ICJ) indicates the extent to which Malaysia is prepared to go in achieving solutions to bilateral problems. The establishment of separate joint commissions between Malaysia and Brunei, Indonesia, the Philippines, Thailand, Laos and Vietnam has also provided a useful framework to develop wide-ranging bilateral co-operation in all fields of mutual interest.

Bilateral relations with other Asian, African, Middle-Eastern, and Latin American countries would continue to be pursued without neglecting our traditional economic partners in Europe and America. Japan, the European Union, the US, Australia and the Republic of Korea would remain Malaysia's major trading partners as well as source of investment and technology, particularly in connection with the establishment of Malaysia's multimedia super corridor.

In Malaysia's foreign policy perspective ASEAN and regional ties will continue to be the cornerstone of foreign policy. To Malaysia, ASEAN remains an important regional organisation as it serves

the purpose of promoting cooperation with countries in the region, as well as in maintaining peace and stability through intra-ASEAN dialogue and cooperation. Since its establishment, ASEAN has developed and refined various mechanisms and arrangements to promote trade, investment and other collaborative activities.

Malaysia will continue to push for strengthening of ASEAN as a regional grouping. In the post-cold war situation, which has observed the emergence of competing regional economic groupings and uncertainty in the regional security environment, Malays believe that a strong and successful ASEAN is not only an economic necessity but also a strategic imperative. A prosperous, consolidated and stable ASEAN at peace with itself and with its neighbours provide the best guarantee for the security of the entire Southeast Asia and East Asia region. Co-operation within ASEAN is now firmly entrenched. ASEAN is not about to lose its dynamism, viability and relevance. The increasing interest towards ASEAN and requests made for sectorial dialogue partnership by a number of Asian, African, and Latin American countries, reflect the high esteem accorded by them to ASEAN as a regional organisation. Today, Malaysia and others are making serious efforts towards the realisation of an ASEAN Community. This is to be realised through the building of the followings :–

(a) The ASEAN Security Community.

(b) The ASEAN Economic Community.

(c) The ASEAN Socio-Cultural Community.

In addition, focus will continue to be given to ASEAN+3 and ASEAN Regional Forum (ARF), and the settlement of disputes in the South China Sea. Through regional dialogue processes such as the ARF, Malaysia will work to promote greater understanding, transparency, mutual trust and regional stability by fostering in particular stable strategic relations among major players present in the region such as China, Japan, Russia and the United States. In the context of ASEAN+3, Malaysia remains a firm advocate of the strategic and economic importance of cooperation with China, Japan and the Republic of Korea.

On 14 December 2005, Malaysia hosted the first East Asia Summit (EAS) in Kuala Lumpur. Participated by all ASEAN countries, Australia, China, India, Japan, New Zealand and Republic of Korea, the EAS would be a forum for dialogue on broad strategic

issues of relevance. Malaysia views the EAS as an integral part of the regional architecture which comprises other fora such as ASEAN, ASEAN+3 and the ARF. EAS could play an important role in ensuring a stable and conducive environment that would contribute to the overall development of the East Asian region.

At the multilateral level, Malaysia has and will continue to be active in the OIC, Commonwealth, NAM, and the UN. Such fora are useful in promoting co-operation between member states, in finding solutions to global problems and in establishing common ground rules that will guide the peaceful conduct of international relations. Malaysia will continue to use the platform available to speak on global issues like human rights, environmental degradation, transnational crime, refugees, democracy, the role of women and reforms of the UN Security Council. We believe that the UN should continue to be effective in dealing with global developmental issues, peace and security, humanitarian activities, international crisis and cases of violations of the UN Charter and principles of international law - in a fair and equitable manner.

At the same time, Malaysia remains equally pre-occupied with other critical issues such as combating international terrorism. Following the rise of terrorism, Malaysia has been working closely with all countries to ensure that not only is terrorism eradicated, but also the root causes which motivate people to resort to terrorism, are addressed. Malaysia believes that international efforts to combat terrorism should be carried out in an impartial and objective manner, in accordance with the principles of international law. We believe that a universally accepted definition of terrorism is important to enable the international community to take concerted and targeted action against those who have been defined as terrorists. Malaysia also believes that measures against international terrorism should not infringe upon the sovereignty and territorial integrity of countries.

As part of our ongoing efforts to counter terrorism, Malaysia has set up the Southeast Asia Regional Centre for Counter Terrorism (SEARCCT). This Centre is meant to serve as a regional centre focusing on training, and conduct of capacity building collaborative programmes with other countries. Currently, it has a joint programme with the United States. Similar projects are being discussed with Japan, Australia, the UK, Canada, Germany and the EU.

Another issue of concern to Malaysia is the proliferation of weapons of mass destruction. It is important; therefore, that Malaysia's foreign policy be geared towards ensuring that more and more nations sign and ratify the relevant international conventions such as the Nuclear Non-Proliferation Treaty (NPT), the Comprehensive Test Ban Treaty (CTBT), Biological Weapons Convention (BWC), Chemical Weapons Convention (CWC) and the Convention on Land Mines (CLM).

Like other countries, Malaysia is also concerned with continued tension and conflict in the Middle East. Malaysia, as Chairman of both the OIC and NAM, remains committed in its support to Palestine towards achieving self-determination and the establishment of a sovereign and independent Palestinian state. Malaysia will support President Mahmoud Abbas and Palestinian people in their struggles to achieve their objectives. Israel must vacate all occupied Arab territories to ensure that peace and stability prevail in the region. Malaysia had welcomed the *Putrajaya* Action Plan, adopted at the end of the Conference on Peace in Palestine that was held in Malaysia in March 2005. The plan among others stated the following:–

(a) The United Nations Resolutions on the Israeli-Palestinian conflict must serve as a logical starting point for the restoration of Palestinian rights.

(b) There must be a total and complete Israeli withdrawal from Gaza and the West Bank to its pre-1967 borders.

(c) A sovereign and independent Palestinian state should be established on the Gaza and West Bank with Jerusalem as the shared capital of both Palestine and Israel.

(d) Palestinian refugees should be allowed to return to both Israel and the new Palestinian state.

On Iraq, Malaysia has been playing an active role, urging the UN and the US, to seek an amicable solution to the country's crisis. Malaysia is of the view that the UN, as the world body, has the best credentials to assist Iraq in political process and create conducive environment to enable the international community to take part in peace-building and reconstruction efforts of the country.

Malaysia had also welcomed the elections of the Transitional National Assembly held in Iraq on 30 January 2005 and the appointments of Jalal Talabani as the new President, Ibrahim Jaafari as the new Prime Minister and other Cabinet Ministers of the Iraqi Transitional Government. Malaysia is supportive of Iraq's efforts towards achieving political stability and return to normalcy. In this regard, Malaysia is of the view that there is a need for a comprehensive approach incorporating security, governance, economic revival, justice and the rule of law.

With regard to NAM, Malaysia would make every effort to further enhance the unity, cohesion and solidarity among member countries to ensure that not only the voice of NAM is heard but views are sought by the big powers and international organisations before major decisions are made.

Let me briefly touch on Malaysia's bilateral relations with India.

As I had mentioned earlier, India was among the first countries to establish diplomatic relations with the then newly independent Malaya in 1957. Both countries have enjoyed close and cordial relations through traditional trading links and people to people contacts. Close friendship nurtured between our leaders had further cemented our relationship. A large number of Malaysians of Indian origin helped to spur growth of multi-faceted areas of cooperation between Malaysia and India.

Today, India is Malaysia's largest trading partner in South-East Asia. Bilateral trade between the two countries has increased significantly during the last two years. In 2004, total trade between Malaysia and India was recorded at RM16.3 billion (US$4.2 billion) as compared to RM12.2 billion (US$3.2 billion) in 2003, an increase of 25 per cent from the previous year. Malaysia's exports to India showed an increase of 15 per cent with export valued at RM11.41 billion (US$3 billion) in 2004 as compared to RM9.64 billion (US$2.53 billion) in 2003. Similarly, imports from India registered an increase of 47 per cent with import valued at RM4.89 billion (US$1.29 billion) in 2004. The balance of trade which has persistently been in Malaysia's favour, over the last few years stood at RM6.51 billion (US$1.71 billion).

Bilateral trade between Malaysia and India is expected to grow steadily in 2005. For the period of January to September

2005, total trade stood at RM 13.8 billion (US$3.63 billion). Malaysia's exports to India amounted to RM10.8 billion (US$2.84 billion) while total imports reached RM 3.02 billion (US$795 million).

The bulk of Malaysia's exports to India is crude petroleum, constituting almost 30 per cent of Malaysia's total exports. Other major exports to India are electrical and electronics products, palm oil, chemicals and chemical products, sawn logs and sawn timber. Major imports from India are food (cereals, vegetables and fruits), meat and meat preparations, organic chemicals, non-ferrous metals, iron and steel as well as textile yarn and fabric. There is vast potential for bilateral trade to increase further. To do this, we need to increase and diversify the range of products and services between our two countries. To further boost our economic relation, Malaysia and India have agreed to negotiate a Comprehensive Economic and Cooperation Agreement (CECA), which when concluded would greatly enhance economic cooperation.

Apart from trade, collaboration in the fields of tourism, civil aviation, investment, education, science and technology, infrastructure development and energy are the sectors that have contributed in bringing our two countries closer. The growth in tourism traffic has resulted in increase in flight frequency between our two countries. Now private airlines from India have started or are about to commence operations to Malaysia. This would lead to more people-to-people contact creating better understanding of each other's culture and provide them opportunities to explore new business possibilities. The number of tourists from India totalled 2,14,781 last year. I am confident that contacts between our people will continue to grow in the future.

As Malaysia progresses toward achieving its Vision 2020, other new areas of collaboration with India are bound to develop. India is known for its strength in Information and Communication Technology, pharmaceuticals and biotechnology. Malaysia too is focusing on these sectors and together both our public and private sectors can forge a partnership that would be mutually beneficial.

India has become a major investor in Malaysia. Currently there are more than 45 Indian companies in Malaysia's Multimedia Super Corridor. Malaysia welcomes more investment from India especially in the area of biotechnology. Likewise, many Malaysian

companies are venturing into projects in India, including infrastructure development, a sector of high priority to the Indian government. To date, Malaysian construction companies have completed 39 projects worth US$1.49 billion. Most of these projects were in the construction of highways. Given India's Look East policy and greater participation and interest in intensifying economic cooperation with ASEAN countries, the prospects for closer relationship are indeed very bright.

At regional and international levels, Malaysia and India share common membership of the NAM, the Commonwealth, the Group of 15 (G15), the Group of Seventy Seven (G77) and the Indian Ocean Rim-Association for Regional Cooperation (IOR-ARC). Through these fora, both Malaysia and India have played an active role to defend and promote the interests of South countries and for South-South cooperation to continue its momentum. Given its history as one of the founder members of the NAM, Malaysia hopes that India would continue to play an active and inspiring role in the continuing efforts towards revitalising NAM in order to enhance its unity, coherence and solidarity.

Finally, Malaysia-India bilateral relations could be projected to grow further as our cooperation and the momentum of India's participation in ASEAN activities increases. As a Dialogue partner of ASEAN and a member of ARF and now as a participant in the EAS, India have more avenues to share its views with Malaysia and other ASEAN countries to work together on mutually beneficial areas of cooperation in the development of the South East Asia and the East Asia region. I am confident that increased interactions between our leaders at regional meetings will send the right signal to stimulate greater interest among our people to work closer so that we can march forward in partnership for peace, progress and shared prosperity of our region. There is a strong commitment on the part of our leaders to further widen and deepen our multi-faceted relations.

Are We Prepared Against Nuclear Disasters?

Brigadier B K Khanna, SM, VSM (Retd)

On 8 December 2004, two persons were detained by Izzatnagar Police, Bareilley, Uttar Pradesh (UP) on suspicion of being small time drug peddlers. They were carrying a sophisticated metal box, which when examined by Bhabha Atomic Research Centre, turned out to be containing 253.6 gms of 99 per cent enriched uranium. Natural uranium contains 0.7 per cent uranium 235 (U 235). To convert it into a form suitable for nuclear weapons it must be enriched by increasing the concentration of U 235 to about 90 per cent. The amount of enriched uranium needed to make a nuclear weapon varies with the degree of enrichment and the sophistication of the weapon. A 'dirty bomb', however, does not require such enriched uranium.

Technology for making atom bomb is readily available. However, enriched uranium can only be processed in state owned sophisticated facilities. Although, a highly sophisticated implosion nuclear weapon can be made from just nine to twelve kilograms (kgs) of highly enriched uranium (90 per cent), for a 'dirty bomb', the requirement is much less. Similarly, a number of thefts of Cobalt 60 have reportedly taken place from the cancer hospitals in the capital. Cobalt 60 can be used for making 'dirty bomb' easily. One does not require technical knowledge to make one.

All this leads to the conclusion that there is a likelihood of nuclear material being used by terrorists to achieve their nefarious designs. Are we prepared to face such an eventuality? Probably not. Where are the pitfalls and how can we minimise their effects?

India has been grappling with low intensity conflict and terrorism in Jammu and Kashmir and insurgencies in the North East for several years now. The Mumbai blasts of 1993, the Coimbatore explosions of 1997 and numerous events of civil unrest and strife are the other manifestations of human induced disasters.

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The 11 September 2001 incident in the USA was a grim reminder to the world of the worst possibilities of terrorism. It also made the West, especially the USA, realise the practical nuances of terrorism.

The likelihood of nuclear weapons, (may be of crude variety), falling into the hands of terrorists and militants cannot be ruled out. For whom were the uranium plates heading for on 8 December 2004? This is a question our intelligence agencies are grappling with. Although steps in the right direction are being taken in capacity upgrading preparedness and response mechanism for tackling natural and human induced disasters, not much has been achieved to counter nuclear disasters. This is a grey area which needs to be addressed.

Nuclear disasters, by their very nature invoke a great deal of emotions, ranging from command over unlimited power to that of utmost horror and revulsion. At the same time, in spite of detailed accounts available about the effects and repercussions of nuclear disasters, the magnitude of the tragedy and the challenge implicit in their existence does not easily sink in.

Nuclear disasters may also mean nothing to the population since they are under the perception that it may never happen in their lifetime and more so since the chances of worldwide nuclear war have receded after the break up of the former Soviet Union. But with the proliferation of the nuclear technology, the chances of it taking place nearer home have multiplied. With easy availability of nuclear know-how, a crude variety of radiological dispersal device or 'dirty bomb' with terrorists and militants is a reality. Thus terrorism and spread of nuclear weapons have enlarged the scope of human induced disasters.

Nuclear Hazards

Disasters occur when a trigger event, a hazard (earthquake, cyclone, flood, industrial accident, act of terrorism, nuclear explosion, spill and so on) drastically affects human population. Most disasters have common characteristics – they lead to disruption of normal activity pattern of societies,.they result in a degree of loss (human, material, economic and environmental)

and they often outstrip the ability of the affected societies to deal with the problem themselves without resorting to external help.

Nuclear Attack Defined

The detonation of nuclear weapons gives rise to the phenomenon of flash, blast wave, thermal wave, massive fires (fire storms), initial radiation (neutrons and gamma rays), radioactive fall out, electromagnetic pulse and climatic changes. The extent of damage caused by a nuclear bomb depends not only on the type and size of the bomb but also on the height at which it is detonated, the atmospheric conditions, the time of the detonation and other variable factors. However, height of detonation is the main factor determining whether there will be local radioactive fallout or not. If the fire ball, the size of which depends on explosive yield of bomb, touches the ground, i.e. in case of a ground or low air burst, it sucks up huge quantities of earth and debris with the radioactive products of the bomb. These form part of the characteristic mushroom cloud that is carried aloft with the wind. When the fireball cools, some of the radioactive particles descend by force of gravity, the others are deflected downwind from the site of the explosion. In the case of an air burst, there is no local fallout.

Any explosion involves release of a large amount of energy in a very short time. In a nuclear explosion, the energy is produced by redistribution of protons and neutrons, among the interacting nuclei. Thus the energy released in a nuclear reaction is of the order of nuclear binding energies, which are much larger than chemical binding energies. This difference in energies released is the cause for immense destructiveness of nuclear weapons. The redistribution of nuclei is observed to happen in one of the two ways: a heavy nucleus can split into two lighter nuclei or two light nuclei can combine to form a heavier nucleus. The former is called 'fission' and the latter, 'fusion'. These different processes form the basis of the 'fission weapon' and the 'fusion weapon', also known as the 'atom bomb' and the 'hydrogen bomb' respectively. The energy released when a nuclear weapon explodes is called the yield of the weapon. This is usually measured in kilotons or mega tons of TNT equivalent.

Types of Nuclear Disaster

Nuclear disasters can be of three kinds as follows:-

(a) **Type 1.** During nuclear attack in a war scenario.

(b) **Type 2.** Nuclear leaks in nuclear reactors during normal functioning.

(c) **Type 3.** Nuclear weapons falling in the hands of anti-national elements or sabotage or militant threat to strategic targets like seat of power, national symbol (like the Parliament), military establishments, densely populated areas, nuclear establishments, reactors and so on.

Type 1 Disasters.

Nuclear disasters can be caused as a result of full fledged nuclear war between two warring nations possessing nuclear weapons. Civil defence in rear areas, in such an eventuality, is probably not all that prepared. Director General, Civil Defence should become the nodal agency for responding to all types of disasters, including nuclear ones. Mock drills should be conducted regularly.

Type 2 Disasters.

As regards Type 2 nuclear disasters, these occur due to the following:-

(a) Human error.

(b) Carelessness during routine working.

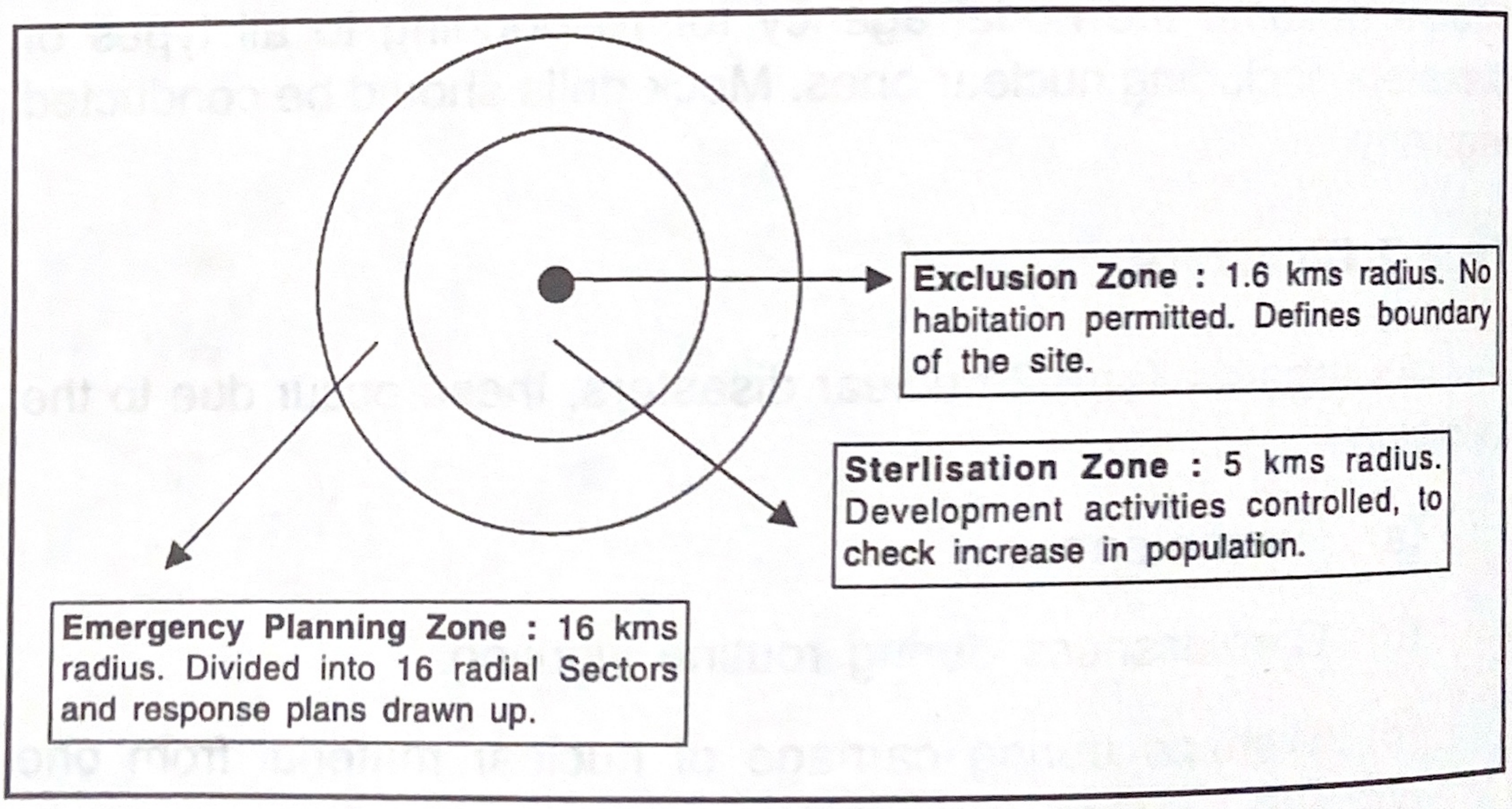
(c) Mishaps during carriage of nuclear material from one place to another.

Commercial nuclear reactor uses low grade nuclear enriched Uranium (four per cent U235) which can not explode like an atom bomb. Melt down may take place when a reactor 'melts' i.e. uranium fuel rods start to liquify. In a commercial nuclear reactor, the chain reaction generated is controlled and there are stringent checks and counter checks, to prevent leaks. Elaborate arrangements

exist to take remedial measures within the complex, including immediate, short and long term. The responses are checked periodically to test the standard operating procedures. But errors do occur. In its long history of 67 years since 1938 when fission was first discovered, the problem of controlling this technology has been of central importance to the human race. Nuclear technology should be used for development and not for destruction. In its peaceful use, there have been a few disasters, two of which have been documented, namely Three Mile Island, Pennsylvania, USA (28 March 1979) and Chernoboyl in Ukraine (26 April 1986). Both nuclear accidents started as a result of minor technical failures, which were accentuated into disasters due to human errors or wrong perception and reading of the situation. The one in India at Kalpakkam Nuclear Reprocessing Plant (KARP), Tamil Nadu on 21 January 2003 was reportedly successfully contained and a major disaster averted.

Emergency Response Plans for Nuclear Facility. Figure 1 is one schematic of emergency response zones.

FIGURE 1 : EMERGENCY RESPONSE ZONES



Note : Generally, all emergency response plans are finalised two years before the plant is commissioned. An off site emergency exercise is also supposed to be conducted before commissioning.

Each nuclear power station facility has an 'Exclusion Zone' of 1.6 km, surrounding the power station, in which no habitation is permitted. The entire area is fenced or walled off and defines the boundary of the site. Next comes the five km radius, known as

'Sterilisation Zone' in which all developmental activities are controlled, to check the increase in population. Beyond this is the public domain and an area of 16 km radius around the plant site which is called off site 'Emergency Planning Zone' (EPZ).

There are three types of emergencies for which emergency response plans are made as under:-

(a) Plant Facility Emergency (Emergency Standby, Personnel Emergency and Plant Emergency).

(b) Site Emergency.

(c) Off Site Emergency.

In the 'Plant Facility Emergency', the accidents are expected to be limited to the plant facility only. Adequate safety measures have to be taken to save workers and machinery. The second type, the 'Site Emergency', wherein the consequences of an accident are not expected to cross the site boundary i.e. 'Exclusion Zone', which means that there will be no radiological emergency in public domain. The response plans are approved by highest nuclear authority. They are tested during exercises and drills and corrective measures taken. As part of trigger mechanism, the Crises Management Group in Department of Atomic Energy (DAE) is automatically alerted even when a 'Plant Emergency' exercise takes place. This is repeated even in a 'Site Emergency' exercise. For the last type of emergency (Off Site Emergency), which is highly unlikely, detailed response plans are drawn up. The local district administration and the Crises Management Committee at the Cabinet Secretariat are expected to get involved only in this last type of Emergency. It is local district administration which is responsible for drawing up and testing 'Off Site Emergency Plans'. These plans are tested at least once every two years. DAE has an Emergency Control Room (ECR) which is manned and operated round the clock all year round.

Preparedness for nuclear fall out includes a system for notifying the public in 16 km Emergency Planning Zone. The public might be advised to stay indoors or evacuate the area.

The other type of radiological emergency envisaged in the public domain is during the transportation of radioactive material. Mandatory design specifications for the packaging, systems and procedures for handling and transport have to be in place, to ensure that there is no release of radioactivity in the public domain, in the unlikely event of such an accident. However, even if such an event were to occur, the ECR at the DAE Secretariat gets an alert, which in turn, immediately activates the Crises Management Group. It is, however, recommended that for monitoring the movement of radioactive material, global positioning system (GPS) or equivalent gadget should be used by the transporting vehicle as well as sending and receiving agencies and the ECR.

Type 3 Emergency.

The third type of emergency is when the nuclear weapons fall in the hands of terrorists. Terrorist use of a radiological dispersion device (RDD) often called "dirty nuke" or "dirty bomb" – is considered far more likely than use of a nuclear device in a war. These radiological weapons are a combination of conventional explosives and radioactive material designed to scatter dangerous and sub-lethal amounts of radioactive material over a general area. Such radiological weapons appeal to terrorists because they require very little technical knowledge to build and deploy, compared to a nuclear device. Also, radioactive materials, used widely in medicine, agriculture, industry and research, are readily available and easy to obtain, compared to weapon grade uranium or plutonium. Use of a nuclear device would probably be limited to a single smaller "suitcase" weapon.

There is no way of knowing how much warning time there would be before an attack by a terrorist using a nuclear or radiological weapon. A surprise attack remains a possibility. If intelligence reports envisage threat of a nuclear bomb strike by terrorists, people living near potential targets could be advised to evacuate or they could decide on their own to evacuate to an area not considered a likely target. Protection from radioactive fallout would require taking shelter in an underground area, or in the middle of a large reinforced concrete building. But with the 'dirty bomb' in the hands of anti- national elements, no area in the country is safe. Some examples of the potential targets for the terrorists

could include:-

(a) Strategic missile sites and military bases.

(b) Nuclear reactors and nuclear establishments.

(c) Centres of government and state capitals.

(e) Important transportation and communication centres.

(f) Manufacturing, industrial, technology and financial centres.

(g) Petroleum refineries, electrical power stations and chemical plants.

(h) Major ports, airfields and large railway yards.

(j) Military headquarters, ammunition depots and so on.

Protection Against Nuclear Detonation

Best protection against nuclear detonation is spreading general awareness among the population. When early warning of nuclear detonation is received or when it has already taken place, try and take shelter underground in subways or underground portion of Metro rail. While underground, lie in one corner near the wall. If caught over ground, rush to nearby house and lie face down in the centre of the room or under heavy furniture. If in the open, drop on the ground, face down, crawl to a nearby cover, with no portion of your body exposed directly, lower sleeves of your shirt, curl your face with your arms, lie face down. If traveling, close windows and stop air conditioning and other vents. Move out of the contaminated area as fast as possible.

At present, we are neither prepared nor have taken steps in educating the masses. The right place to start in educating the public about nuclear disasters is to make it a part of study curriculum from VIII standard onwards. For educating adult population, following steps are recommended:-

(a) Include a chapter in undergraduate courses in all disciplines.

(b) Include study of nuclear study material as part of basic courses at Lal Bahadur Shastri Academy of Administration Mussorie, Sardar Vallabbhai Patel National Police Academy Hyderabad, Para Military and State Police Academies, Armed Forces Training Academies, schools of instruction and so on.

(c) In-service courses of all government and Non-Government Organisations (NGOs).

(d) Workshops, seminars, discussions on TV, radio and print media are also important mediums.

Director General, Civil Defence, should be nominated as a nodal response agency for all nuclear disasters, except in the war zone. He should coordinate plans and organise mock drills periodically.

CONCLUSION

The chances of these 'dirty bombs' falling into the hands of terrorists cannot be ruled out. Nations have to evolve their strategies, plan tactics and set standard operating procedures against such eventualities as a precautionary measure before they cause catastrophic damage to the country and its people. Presently we are not prepared for this type of a disaster. Unfortunately, India has been learning only after a disaster has struck. Super cyclone of 1999, Bhuj earthquake of 2001 and Tsunami of 2004 bear testimony to this stark reality. Recovery of radioactive uranium and thefts of Cobalt 60 are pointers to the larger threat in the offing. We know that the South Asian region is a nuclear flashpoint. Let us prepare ourselves accordingly.

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An Operational Perspective of Network Centric Warfare in the Indian Context

Lieutenant General V K Kapoor, PVSM (Retd)

A Revolution in Military Affairs

The character of war is always changing but from time to time the pace of change accelerates ,or appears to do so resulting in debate within the strategic community with the usual media hype. One such "strategic moment" has arrived. While everyone acknowledges that war must still be war yet few understand that it must now be waged in a noticeably different manner. In this context, Network Centric Warfare (NCW) or information based warfare is truly a Revolution in Military Affairs (RMA) which promises to fundamentally change the nature of warfare in the future. The fascination of the Armed Forces all over the world and the Indian military hierarchy with RMA is understandable. The fact that they are excited about it is evident from their statements appearing in the media from time to time. This article attempts to throw some light on NCW from an operational and functional perspective so that we do not get carried away by the diachronic (linguistic) and technical framework without understanding the operational connotations of the concept of NCW and the key technologies involved. We also have to take care that its development and application in the Indian context is done holistically for defence establishment within the national information infrastructure with all the necessary linkages so as to derive the maximum possible operational advantage for a spectrum of operations. This must extend from low intensity conflicts and terrorism to high intensity conventional conflicts under the threat of use of nuclear weapons.

The first step is to get past the definitional aspect. An all-inclusive definition can be stated as follows: *a concept of operations that generates increased combat power by networking sensors, decision makers and shooters to achieve shared awareness and synchronized activity.* Another definition states that NCW (*also known as information based warfare*) *is the product of convergence of certain key technologies such as computers, communications, sensors and precision fires and their exploitation to bring to bear*

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maximum combat power at the right time and the right place". NCW uses information for the benefit of the war fighters in peace and in war. The military calls it "situational awareness" which implies awareness regarding terrain (including objectives/targets), enemy, and own forces. This information is passed from the sensors deployed on the ground, at sea, in the air and in the space (satellites, unmanned aerial vehicles, aircraft, radars etc) through broadband digital communication networks to front line units and the decision makers in the rear in real/near real time frame thus making the battlefield transparent and reducing response time. Network Centric Operations (NCO) is an umbrella term which encompasses the concepts of NCW (US), Network Enabled Capabilities (UK), Network Based Defence (Sweden), Network Enabled Capabilities (NATO) and similar terms used around the world. NCOs have also been described as high tempo, precise, agile style of manoeuvre warfare focused on Effects Based Operations (EBO) that derive their power from robust networking of geographically separated entities. EBO themselves are coordinated sets of actions directed at shaping the behaviour of friends, foes and neutrals in peace, crises and war. This implies timely, appropriate and skillful use of all or selected element(s) of national power which include political/ diplomatic, economic, technological, social, psychological, information/media and military among others. Timely sharing of information and intelligence results in increased speed of command, higher tempo of operations, greater lethality and increased survivability. In essence, therefore, NCW advocates and enables integration and "jointmanship" in which the three services are lagging behind despite all their rhetoric from time to time. The final aim is to achieve strategic [political] objectives of war with the least amount of tactical effort which incidentally is also the essence of "Operational Art". Hence *"jointness" and "integration" together with innovative Operational Art are vital parameters of this type of warfare*. At the national political and military strategic levels, we are continuing underplay and ignore these issues. Our so called "jointness" is neither totally functional nor formalized.

Integration and Synergy

The Group of Ministers [GOM] in their recommendations on "Reforming the National Security System" in February 2001 had stated - "The Chiefs of Staff Committee (COSC) has not been effective in fulfilling its mandate. It needs to be strengthened by the

addition of a Chief of Defence Staff (CDS) and a Vice Chief of Defence Staff (VCDS)." With greater emphasis on joint and integrated operations in the future, the system had to be reorganized with a CDS, and a VCDS together with an integrated staff, to render "Single Point Military Advice" to the Government, to administer the Strategic Forces, to enhance the efficiency and effectiveness of the planning process through intra and inter-service prioritization, and to ensure the required "jointness" in the Armed Forces. But the irony lies in the fact that the CDS has not been nominated and no operational role has been envisaged for the CDS. The Chiefs of Staff have retained their roles of Operational Commanders-in-Chief of their respective services, despite the so called "reforms". This curious and extraordinary occurrence has been generally unnoticed by the media. To understand this issue further, let us consider a crisis situation in which Cabinet Committee on Security (CCS) issues a "CCS Directive" to the COSC. The latter, after analyzing the requirements and after converting the political aims and objectives to military strategic aims and objectives, would prepare the "COSC Directive" for the Services. Now, being dual-hatted, they would receive their own directive for operational implementation, and would in turn prepare operational instructions for their respective regional commands. From here (Army/ Navy/ Air Headquarters onwards), there is no "jointness" in planning as per the present organizational structure. Each Service plans exclusively and attempts to coordinate the operational plans later at the regional command level, with the other Services. The regional command headquarters of the three services are neither co-located nor networked. Hence proper [formalized] joint operational planning and real time sharing of information picked up by various sensors of the three services is not possible at any headquarters, starting with the Army, Navy, and Air Headquarters to all levels below these headquarters. As future conflicts, especially the non-traditional variety, are likely to be characterised by selective use of force and short response timings, lack of properly integrated organisations will preclude joint operationally efficiency as was evident in Kargil operations. Post Kargil controversies have still not died down but the fervour of the Services for integration and "jointness" has diminished.

Threats And Challenges

This is an important factor for future planning. The threat from

traditional adversaries requires preparation and readiness for high intensity conventional conflicts, which are likely to be rare. In the near and mid-term the Armed Forces are more likely to fight non-traditional conflicts involving, counter terrorism on land, at sea or in the air, "Proxy Wars" supported and encouraged by adversarial neighbours, and terrorism and home-grown insurgencies as part of the turbulent internal security situation. Additionally, the Armed Forces are likely to be called upon to stabilize the volatile strategic environment around India through a benign presence and if required through force projection. Force may also have to be projected to secure our off shore assets, island territories, assets and Indian Diaspora abroad, and to assist friendly nations when invited. Hence the nature of wars, in the future, is going to compel us to think big but with smaller, more maneuverable, more precise, more agile forces and above all, integrated forces. This will also come about because technology will allow large forces to be replaced by *'precision'* and *'information'* highlighting the time factor as the critical issue.

Air and Space Operations

In the context of air and space operations, the Air Force believes that the closely related concepts of Parallel Warfare and EBO are keys to threat avoidance and applying the right force to the right place at the right time. NCW will enable both. The Air Force vision and concept of operations is clearly aimed at enabling NCW by:-

(a) Ensured use of information domain via effective information assurance and information operations.

(b) Seamless joint machine to machine integration of all manned and unmanned and space systems.

(c) Real time picture of the battle space, air space and situational awareness in every cockpit.

(d) Denial of effective C4ISR to adversaries via effective information operations.

The Naval Operations

Navy lays emphasis on its three dimensional operation (the space, the sea and underwater operations) and it seems that the

objectives of their proposed NCO are as under:-

(a) Enable collation, compilation and presentation of operation related data emanating from various sources at the Maritime Operations Centre [MOC] of the three commands and the transmission of fused and filtered data upstream to Naval Headquarters for further collation and presentation of a joint picture and downstream to constituent elements for a common picture.

(b) The MOC at the command level and naval headquarters should have an information support infrastructure that will enable analysis and decision support based on operations related data accessed from all available elements.

(c) At the tactical level, there must be sufficient automation for real time co-ordination of the sensor and shooter. The system must be able to pass command and control intent/ orders. This requires the system to have high reliability and consistency.

(d) The system should support an extensive collaborative environment for furthering shared awareness.

Organisational Challenges

A major challenge lies in the realm of our currently well defined command and control structures which would need a review because in a Net Centric Environment (NCE) the military guideline of 'one up and two down' may not remain relevant. Moreover, the dividing line between strategic, operational and tactical levels, will meet the same fate because the nature of net-centric operations will allow prosecution of operations in a simultaneous and non-linear manner, throughout the battle space, thus hastening the process of achieving the strategic aims and objectives of war.

Another challenge is that while the three services are modernizing their respective networks and suitable gateways are being catered for limited integration at appropriate levels, the communication networks existing currently do not allow the type of inter-operability required. The completion of the Defence Communications Network (DCN) which is being fielded as tri-services strategic communication network for implementation of the C4I2 concepts, will lead to the connectivity down to the Corps

Headquarters in the Army, Maritime Operations Centres in the Navy and Air Defence Direction Centre/ Airfields of the Air Force. We hope that this tri-service architecture is well conceived and developed after bearing in mind various types of operational settings derived through military strategic and operational level war-gaming.

Fundamental Issues

The four fundamental requirements (capabilities) for conducting network centric operations are *Networked Communications, Information Sharing, Advanced Information Technologies such as Agents and Decision Support Algorithms and Networked Enabled Platforms (vehicles, tanks, ships, aircraft and other weapon systems).* The Indian Armed Forces are neither integrated nor do they possess these capabilities, regardless of some "stand alone" capabilities existing within each service. Our desire to acquire the capabilities is laudable but if we wish to move along this path of an Indian RMA then our promises must be backed by agencies and agents for implementation. The military instrument of Network Centric Warfare will have to be forged on suitably integrated organizations, new technologies, joint concepts and doctrines, and joint training and joint communication architecture. Hence the important issues that the Services need to examine in far greater details are:

(a) Jointly evolved communication architecture.

(b) Joint/Integrated organisations.

(c) Joint concepts and a joint doctrine to fight future conflicts.

(d) Induction of new technologies

(e) Network enabled platforms (tanks, ships, aircraft etc.)

(f) Attitudual change to accommodate the concept of NCW.

(g) Adapting military leadership to accommodate the changing nature of war.

Technology

Technology, which is one of the principle factors that drives the change in the method of war fighting is one of the most important components of NCW. India is facing an entirely new technology era, generated through advancements in the *field of miniaturisation, digitization, material science, biotechnology, sensor technology,*

stealth, communications and information technology. India needs to integrate new technologies as warfighting systems for which the requirement is to first evolve a new joint warfighting doctrine and concepts of joint warfighting and then decide upon the weapons and other systems to suit the former. Employment of fully integrated task forces in the future would require, in the first instance, introduction of three key technologies. The first one involves Long Range Precision Firepower on the pattern used by the Americans in the Gulf War, the war in Kosovo and in Afghanistan. *The strikes which were carried out from naval platforms, passed through the medium of air, were guided by space based assets, and struck land targets.* In the Indian context also there will be a variety of platforms. Networking of the fire power resources of the three services will ensure optimum effect on the target while the choice is left to the integrated force commander to use the most appropriate and the most effective weapons. The second dominant technology trend is in the field of Integrative Technologies. The advances in the field of communications, computers, command and control, information and interoperability [C4I2] have provided the military a capability to view the battle space as one composite whole and thus targets can be tackled jointly or singly by any weapon of any service, which is within range. *Inter-operability* will be the essence for the different C4I2 systems of the three Services. The third most important field relates to Intelligence, Surveillance and Reconnaissance [ISR] that will keep track of enemy and own forces movements through advanced sensors and platforms like aircraft, UAVs, and Satellites assisted by Global Positioning Systems (GPS).

These advances are making the battlefield more transparent and the wars more precise. Some of the key technologies, from the point of view of surveillance, in a netcentric environment are Synthetic Aperture Radar (SAR) and Hyper Spectral Imaging (HIS) and a combination of the two in a number of satellites would enable a constant surveillance capability by day and by night. Positioning of as little as four maneuverable satellites over a selected geographical area could provide battle damage assessment every six hours over a 24 hours period. Other advances in space technology such as transmission of huge amounts of data by vehicles like the Transformation Satellite System (TSAT) would enable the dissemination of large packets of data such as HIS pictures. Today it takes a few minutes to receive, typically 500 MB

data (one scene) from satellites. In the future with TSAT, at data rates of 10 to 40 GBPS the same scene would take less than a second to transmit

Structural-Functional dynamics of RMAs

Military analysts have established that RMAs of all kinds, of any magnitude, and in any period are likely to share a common structure with common structural - functional dynamics. Colin S Gray in his seminal work on RMAs in "Strategy for Chaos - Revolution in Military Affairs and Evidence of History" explains nine steps in the RMA process which could assist the Indian military in coordinating and improving their integrated NCW project, if they have one. Step 1 "Preparation", implies that RMAs occur following lengthy periods of reform and extensive preparatory work is necessary. Step 2 - "Recognition of Challenge" explains that RMAs occur for a wide variety of reasons judged important. They are a manifestation of radical political - strategic reorientation which in our case was provided by the Kargil conflict. Step 3 - "Parentage" in that RMAs to be successful required political clout or the patronage of those with political clout. A case in point is of the information - led RMA of 1990s in the US where Andrew W Marshall was the intellectual parent and patron who was keenly supported by the Secretary of Defence William J Perry and Vice Chairman of the Joint Chiefs of Staff William A Owens. Step 4 - "Enabling Spark" implies that an RMA like NCW has to be constructed by revolutionary effort and for this a vital "enabling spark" is needed which may be individuals or a vital inventions. Step 5 - "Strategic Moment" spells out that RMAs typically contain a "Strategic Moment" which reveals, as in a flash of brilliance, new and exciting strategic possibilities. Such moments by themselves may not be the main event but they provide the hint of what may be feasible. Step 6 - "Institutional Agency" explains the need for RMAs to have agencies and agents for implementation. These include appropriate military organisations and with suitable military cultures, joint doctrines and innovative operational concepts derived through "Operational Art" and intensive training. Step 7 - "Instrument" describes that not only do the RMAs have to be conceived and forged but their military instruments also have to be procured. Regardless of the potency of the military instrument it has to be of a size which is appropriate for executing operational concepts in the Indian context. Step 8 -

"Execution and Evolving Maturity" clarifies that the only test that really counts, in the pragmatic world of strategy, is the detailed consequences of the use of the RMA i.e. its trial by combat. This step essentially refers to the military and strategic effectiveness achieved by implementing the RMA. Step 9 - "Feedback and Adjustment" must have the potential of fuelling a complete renewal of the RMA cycle.

The nine steps explained above are just an analytical tool and could be termed as a conceptual tool kit for understanding an RMA process such as the NCW. It needs reiterating that the NCW phenomenon, involves much more than mere networked communications. In fact it involves a totality of systems, which can be abbreviated as C4I2SR [command, control, communications, computer intelligence, interoperability, surveillance and reconnaissance]. Our Armed Forces would do well to study this phenomenon carefully and conduct the developmental process through tri-service integrated enquiry, research and analysis to arrive at contextual frameworks and structures for NCW. This is also an area where our strategic convergence with the United States must help us in obtaining the technologies that we lack through direct transfer or through joint development projects.

Cost And Complexities

The cost and complexities of such a project will not allow all platforms of the Indian military to be network enabled simultaneously and hence priorities will have to be laid down. As far as the Army is concerned, priority should be given to offensive formations as these may be called out at short notice to deal with developing crises. Selected offensive formations should be network enabled in the first instance. Let us, for instance, take the example of a Motorized Infantry Division Group [a future thought]. In such formations 100 percent Command and Control and Combat vehicles will be network enabled while troop carrying, repair and recovery vehicles and logistics vehicles may be networked selectively. The key factor should be that when networked even 60 to 70 percent solutions should deliver a capability that far out strips the sum of its parts. This will also happen when ground, air and naval platforms are networked and placed under integrated commands. The Army must also think of flatter organisations as both the nature of future wars and future technologies suggest such a solution.

While each Service should plan to conduct intra-service trials for their respective C4I2SR systems, inter-service developments should be conducted apace. I recommend an inter-services team of dedicated professionals from the operational side, with some technical "bright sparks" along with scientists of the Defence Research and Development Organisation (DRDO), at the level of Colonels and equivalents under a two star General/Admiral/ Air Marshal, be formed immediately to look into all aspects of interfacing and interoperability under the aegis of the Integrated Defence Staff. As far as an Inter-Services "test bed" is concerned, an integrated command such as the **Andaman and Nicobar Command** could be nominated. They should have under them the tri-service military instrument of "Force Projection" comprising operational formations of all three Services. This experience can later, after due modifications, be applied to other force levels on the continental land mass of India or for other contingencies outside the Indian Boundary limits.

Conclusion

It is quite disconcerting to note that the three services are progressing on the path of acquiring networked capabilities individually with no coherent framework for a tri-services information architecture. Currently, the Indian Armed Forces have a long way to go to achieve a capability for net-centric warfare despite the fact that the 'strategic moment' for change had arrived. Hence what is required is to establish agencies and agents for implementation within each service and for effective tri-service architecture. The cost of transformation will be formidable hence tri-service organisational synergy and prioritization of resources will be vital aspects of development. Military and Political awakening and acceptance to bring about this change is a fundamental necessity.

Managing the Electromagnetic Battlespace

Lieutenant General Davinder Kumar, PVSM, VSM Bar, ADC

"The next trade war will be on Spectrum and the next World War for Water"

Davinder Kumar 1995

The world is witnessing a revolution in military affairs (RMA) as a result of rapid technological progress. This has led to a paradigm shift in planning and conduct of military operations from legacy platform centric systems to network centric systems. This transformation at strategic level is critically dependent on assured availability, survivability and efficiency of communication-electronic information infrastructure. However, the entire gamut of communication-electronic equipment is affected by and affects the overall electromagnetic operational environment. These interactions in the electromagnetic domain lead to problems of electromagnetic interference and incompatibility.

As density of emitters and receivers was less, resolution of such problems was limited to management of the frequency spectrum, emission control, long term spectrum planning and electronic warfare measures. The problem, though serious, was not considered critical because of the nature of battle. However, the erstwhile battlefield has evolved into an intense, mobile, dynamic and dense battlespace. The allocation of the frequency bands for the Defence Forces is also shrinking as commercial demand for this critical natural resource increases. New technical management procedures are required to manage this situation.

Concept of Electromagnetic Battlespace

Electromagnetic waves, like all other waves are characterized by their frequency and intensity. The electromagnetic spectrum consists of electromagnetic waves of all possible frequencies. This spectrum extends from the very low frequency range used by submarines to millimetric waves used by advanced radars. In

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fact, it is practically defined till about 3000 GigaHertz. The United Nations (UN) defines the spectrum as a sovereign natural resource of any nation state. Electromagnetic waves interact with the physical environment and each other. These interactions have long been exploited by the Communicators community for planning radio communications. Affect of distance and time on electromagnetic waves has also been studied and researched by users and academia. These have been traditionally used to manage the spectrum.

The subset of the overall battlespace in which all electromagnetic systems operate is the electromagnetic Battlespace. It is interplay of three dimensions. These are :

(a) The frequency spectrum or spectral dimension,

(b) Geographic location or spatial dimension and

(c) Real time or temporal dimension.

Characteristics of Electromagnetic Battlespace

This space is all pervasive and affects all communication-electronic equipment. It is not possible to model the entire spectrum technically using a single theoretical rule. It is silent, not directly perceivable by humans and hence very difficult to visualise. Thus, affect of mismanagement, though critical, is not obvious immediately. As emissions are scarce during peacetime, the effects of all emitters will only be felt during wartime, when there will be little time to correct the situation.

Electromagnetic propagation does not respect manmade boundaries. Consequently, the electromagnetic battlespace is shared by all agencies, present in the space. The enemy is also part of this battlespace and in future conflicts, operations for control of the electromagnetic battlespace are likely to be the rule rather than an exception.

Like real-estate, all parts of the spectrum do not have the same value. Legacy systems of the Army were based on bands of the Spectrum having best propagation characteristics. Thus, they were immune to adverse effects of minor antenna mismatch, short term fading etc. However, the civil sector has leveraged this information to force military systems out of these so-called "beach-

front property" bands. Due to rapid technological growth, the Spectrum has assumed greater commercial value than even before.

The electromagnetic spectrum can be easily polluted. Sources of pollution being natural noise, unintentional electromagnetic emissions from activities like heavy machinery, vehicles and intentional pollution in terms of jamming and electromagnetic pulse.

There is a limitation on range of equipment due to emitter power, path attenuation and receiver sensitivity. The propagation is also affected by terrain, atmospheric and solar conditions. Therefore, it is possible to judiciously re-use spectral resources with respect to geographic locations.

In today's dynamic battlefield conditions, there is an increased reliance on 'mobility'. This coupled with a high communication-electronic equipment density make the electromagnetic battlespace extremely dynamic. Thus, time is the third dimension of the electromagnetic battlespace. The electromagnetic spectrum is not depleted with time. However, in case it is not used at the present moment, the resource is lost forever. As equipment cost decreases and Spectrum cost increases, plans must be made to optimally utilise the entire available Spectrum at all times.

Like real estate, occupation of the spectrum is on a first come first serve basis. Due to commonality of the electromagnetic battlespace between opposing forces, the force which maximises usage of spectrum *ab-initio* and incorporates efficient protection mechanisms, will have an upper edge.

It is possible to share spectral resources in time. This is commonly called spectral scheduling.

As per some experts, the Gross Domestic Product (GDP) of a country is directly linked to the telephone density. The spectrum is critical not only for the Defence Forces, but also for overall national growth. Due to increased reliance and ubiquity of cellular communications, the spectral space is becoming increasingly crowded. As spectrum demand of civil industry increases, spectral needs of Defence Forces are likely to be sidelined in a market driven economy. Thus, as the spectral slice shrinks for Defence Forces, its management becomes critical.

DIFFICULTIES IN MANAGING THE ELECTROMAGNETIC BATTLESPACE

Lack of Management Models

Readymade models are not available for outright purchase or emulation. The processes take time to develop and mature. This needs national effort and top-down approach.

Non Tangible Nature

The electromagnetic battlespace is not tangible. Hence, its loss or mismanagement is not directly perceivable. This leads to mis-perception. In fact it is difficult to attribute failures to mis-management till the time effective technical visualisation tools are in place.

Complex Technical Problem

Managing this space is not a trivial technical problem. Solutions are not readily available and most developed nations are vastly protective of their expertise in this area. Since most of the solutions are empirical in nature, direct application is not easy.

Real Time Solution

The management requires real time or near real time granularity. Thus use of automated systems is a necessity. The data to be processed is so large, that this application may have to be run on super computers for real time management.

National Effort

The electromagnetic battlespace cannot be managed in a piece meal manner. It is an all or none proposition. With plethora of agencies being part of the electromagnetic battlespace, coordination and commonality of approach between all constituents of the battlespace is necessary.

Requirement of Specialised Technical Tools

Specialised tools are required for efficient management of the electromagnetic battlespace. These include wideband monitoring receivers with direction finding capability and software for electromagnetic de-confliction. Comprehensive geo-spectral databases containing technical information about all emitters and

receivers in the battlespace and a responsive interference reporting mechanism are essential.

Enforcement Measures

Management of this technically challenging space requires enforcement of spectral discipline. This role can be played by the Joint Communication Electronic Staff under Headquarters Integrated Defence Staff. However, a new generation of techno savvy legal staff is needed for the purpose. The overall legal process needs to be dovetailed with the national legal setup and support the Defence Forces in arbitration of spectrum matters.

Procedural Measures

The procedural measures which accrue out of the legal framework can be divided into long and short term management processes. These are as follows:-

(a) Long management measures include planning and electro-magnetic compatibility (EMC) assurance process through equipment certification, testing of equipment for their electromagnetic characteristics and simulation of electromagnetic affect of projected equipment inductions on present battlespace components. Implicit in this process is the maintenance of a database of technical characteristics of the entire communication-electronic equipment inventory. Service Headquarters shall carry out long-term planning and forecast. They shall also be tasking the technical support facilities.

(b) Short term management measures include software systems for automation of demand and assignment, creation and updation of geo-spectral databases and real time interference detection and resolution mechanism. Short term management shall be coordinated at the Command level by the Command Communications Electronics Coordination Committee (CCECC). Being geographically static, CCECC is visualised to be the overall assignment authority at theatre level.

Technical Support Measures

The technical support measures include infrastructure for development and maintenance of databases, support software,

equipment testing facilities, and monitoring networks. It also includes consultancy mechanisms to provide technical basis for framing of rules and regulations. The relevant organisations in the defence services will have to interface with national level facilities to achieve the required synergy.

Model Implementation

Being a Tri-Services model, this model is likely to take a long time to implement. Hence as an interim measure, the Army through the Corps of Signals, is modifying its existing resources. These include the following:-

(a) Development of appropriate software to automate management functions. This software shall be based on a Geographical Information System (GIS) platform and help assignment authorities grant-interference free resource of user units.

(b) Procure automated monitoring stations as means of interference resolution and aid enforcement.

(c) Modify test procedures to capture equipment characteristics data for populating appropriate databases.

(d) Carry out anticipatory training of selected Officers to act as electromagnetic battlespace managers.

Conclusion

Electromagnetic battlespace management is a rapidly advancing technical field. Due to the criticality of managing the Electromagnetic Battlespace and its ever-changing nature, it is pertinent that robust management processes are put in place. This shall ensure own dominance and control of the electromagnetic battlespace and thus go a long way in ensuring success in future military or economic conflicts.

Counter Revolutionary Conflict Management : The Emerging Paradigm

Brigadier R K Bhonsale, SM (Retd)

"Bombs and pistols do not make revolution____. The sword of revolution is sharpened on the whetting stone of ideas."

Shahid Bhagat Singh's Statement before Lahore High Court

In the modern world, security challenges are all encompassing. These have a geographic dimension encircling the globe and a socio-political facet affecting all strands of human society. Conventional and nuclear wars have lost favour with humanizing of warfare while terrorism and insurgency are some of the multi dimensional threats of today, aptly denoted as asymmetric security challenges. The causatory factors of modern threats are complex, interwoven by a web of issues but the primary one for developing states as India is ineffectual governance denoted by poor State services. A variety of internal and the ubiquitous external factor exploit these debilities to create conditions, which need to be addressed by military or para military means as new skills in mass violence and urban strife are rendering the World increasingly unsafe. However, the legacy of resolution of revolutionary conflicts has offered a body of knowledge, which is a century old. Supplemented by technologies of the information age, we can develop new paradigms of response, without compromising on combat effectiveness of Armed Forces.

AIM AND SCOPE

The aim of this paper is to review current counter revolutionary conflict management with a view to evolve a viable paradigm of resolution with minimal military invasiveness. The paper is in five parts as given below:-

Part I - Nature of Emerging Threats and Challenges.

Part II - Review of National Policy.

Brigadier R K Bhonsale, SM (Retd) is former Commander Lucknow Sub Area. This is an edited version of the first prize and award of gold medal in Group A of the USI Gold Medal Essay Competition 2005.

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Part III - Synergy in Conflict Management.

Part IV - Exploiting Information - Dimesion of the Future.

Part V - Operational Strategies For Efficiency.

I

NATURE OF EMERGING THREATS AND CHALLENGES

Human Dimensions of Modern Revolutions. Modern revolutionaries are men seized with a sense of injustice, who espouse atypical aims such as independence in Kashmir or the terrorist intensions of the Al Qaeda. Violence is the preferred weapon of change typified by propaganda of deed.[1] They justify killing civilians for accepting the status quo. Revolutionary leadership is autocratic and imposes its will on followers while retaining flexibility in dealing with the government. The basic strategy of modern revolutionaries is to undermine state authority leading to anarchy thereby providing an opportunity to re-order power.

The Global Dimension. An essence of contemporary threats is their complexity, with limited certitudes such as demise of the nation state, emergence of individualism coagulated by modern communications, providing the deviant ideologue a medium to spread his message. The contrarian ideology of the age is jihadism and terrorism, its violent manifestation which has affected a wide swathe of nations, the United States, Russia, Ireland, India and Indonesia. A web of violence and information warfare is the emerging paradigm of militants the World over. Their organizations remain loosely networked, chameleon like adopting various *nom de guerre* when banned by the World community. The explosive bomb in its varied forms, improvised, car or suicide is the favoured choice of the new warrior from Baghdad to Bali which is slowly gravitating towards more intense means including weapons of mass destruction (WMD). Easy financing, social and political disharmony is facilitating terror globally as well as locally.

The Regional Facet. In the regional sphere, loosely governed states on India's periphery, Nepal, Bangladesh, Pakistan, Myanmar are military, monarchical, pseudo democracies surviving on self perpetuating profligacy of the governing elites, neglecting grass roots social, political and economic development. In the South, Sri

Lanka's hyphenated ethnic narcissism has created mutually incompatible Tamil and Sinhala elites, unwilling to compromise for public good. The expanding nature of threats is denoted by the recent incident in Bangladesh where 459 explosive blasts were triggered by, "dynamitards" in 63 of the 64 districts concurrently on 18 August 2005.[2] The state has in some cases become a sponsor (ISI in Pakistan), sympathizer (Bangladesh) or a mute spectator (Myanmar) of terror. Relative economic differential between India and its periphery and receding landmass in Bangladesh due to global warming implies continued population pressure particularly in the country's most vulnerable states of the North East. Cross border networking of organizations such as the United Jehad Council (UJC) in Muzaffarabad and Hurriyat Conference in Srinagar is a common phenomenon. India is thus being said to be surrounded by a, "ring of fire".

National Spectrum of Threats. At the national level, three basic trends; jihadism, separatism and radical left are evident. Separatism has two trends, in Kashmir it is fuelled by a misplaced notion of Islamic affinity with Pakistan, the other in the North Eastern states is based on ethnic discontinuity. The economic inequities threat is affecting the Indian heartland extending from Northern Bihar to Andhra Pradesh in what is being called as the Red Corridor due to the ideology of the left espoused by these elements. At the local level, threats tend to manifest based on a variety of factors, the main one being symbolism.

The overlapping nature of global, regional and national threats is evident from the joint training camps of Nepal's Maoists and Indian Naxals in West Champaran District of North Bihar traced by the Seema Suraksha Bal during June-July 2005.[3] The cellular structure of Al Qaeda at the international level has already replicated itself in Kashmir, the North East as well as the Naxalite Red Corridor. ISI on the other hand spearheads the jihadi threat across the span of the region from Afghanistan-Pakistan-Kashmir to the North East.

Support Infra structure of Insurgencies. The support infra structure for insurgencies entails a number of inter related activities, the prime one being financing. Funding is varied. Producing pornographic digital video discs (DVDs) is the latest trend discovered in Tripura.[4] Crime is the breeding ground of terrorists

and the line between criminals and terrorists is increasingly blurred. Gun and explosive running, human trafficking, money laundering and drugs are other major sources of income generation and support activities.

Distinctive Characteristics of Indian Insurgencies. Indian insurgencies are unique and go beyond the well established, "Lawrence of Arabia" model. India's militants are well entrenched stakeholders within the democratic (sic) system. Their violent outpourings are frustrations resulting from inequities of Indian governance. Militants have public sympathy due to their ability to deliver justice through, *Jan adalats* or provide aid as seen during the epidemic in Vishakhapatnam in May-June 2005 when Naxalites of the People's War Group (PWG) conducted effective relief.[5] In some cases, terrorism and militancy have evolved as business and employment enterprises. This is particularly true of states where extensive extracting and lumbering is carried out, as in Chattisgarh, Jharkhand or Manipur. Brutality and extortion is a two way process in the Indian system, police as well as terrorist.[6] Lack of millenarian goals as that of Al Qaeda is the only silver lining. Thus the revolutionary trends observed in the country are symptoms of economic and social transformation due to a web of inequities creating a vicious cycle of creative destruction as shown in Figure 1 below.

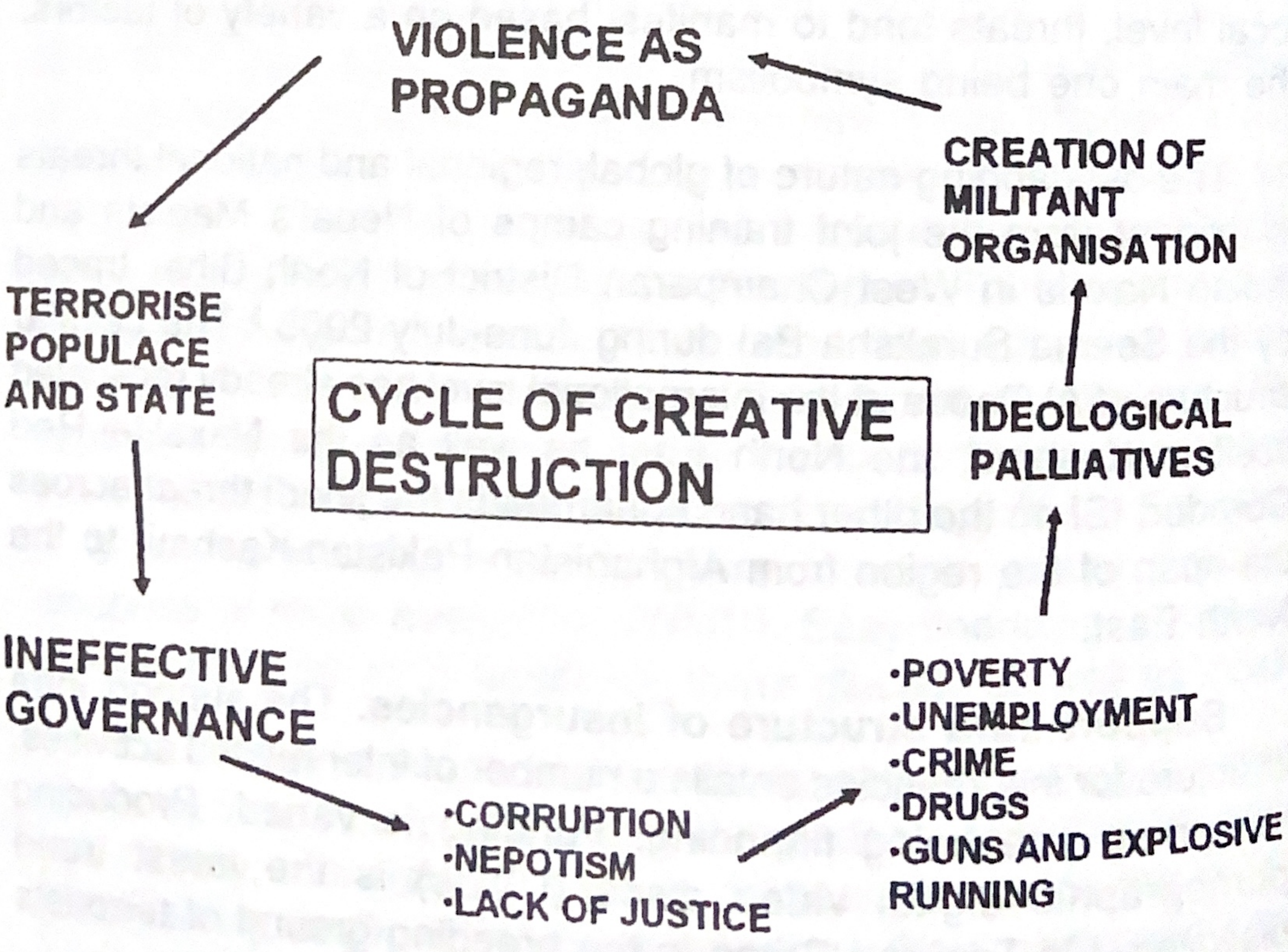


Figure 1

The strength of armed militants in India is not overtly alarming. In Andhra Pradesh, at present there are approximately 1200 - 1500 militants.[7] In Kashmir, authentic reports state that the number of insurgents has been brought down from about 3000 a couple of years back to 1500 today.[8] The United Liberation Front of Assam (ULFA) is estimated to have the same strength. Over the years, however, insurgent organizations have developed a need for self survival leading to regurgitating issues for continued existence. The recent drive for a Naga homeland by Naga *Hoho*, enjoying the benefits of over three years of cease fire is a salient example of this escalatory ladder of issues adopted by revolutionaries.[9]

A broad categorization of nature of threats and outline pathways for solutions is tabulated as per Figure 2.

STRUCTURE OF THREATS	IDEOLOGY	SUPPORT STRUCTURES	MANIFESTATIONS
Global	Jihadism	Information Infrastructure	Guns, explosives graduating to weapons of mass destruction
Regional	Separatism	Fundamentalist polity and education	Sabotage at public places
National	Economic Empowerment	Crime, drugs, gun and people running Money laundering, counter fiet currency and other economic offences	Sabotage of government installations Supporting activities as kidnapping, extortion
Solutions			
Global, regional and national alliances to address threats in an integrated manner	Political, economic, social and information management for integration of deviants with state ideology of equity, justice and freedom.	Improve deliverance of - governance, judicial, police, financial and so on.	Controls-Guns, explosives, weapons of mass destruction. Improve the judicial and police system for effective law and order

Figure 2

II

REVIEWING NATIONAL POLICY

Identifying Policy Challenges. The aim of internal security management is to lower the influence of violence and restore state power and authority. The Minister of State for Home had outlined the integrated policy for tackling Maoists in India as follows:-

(a) Modernise state police forces and augment their strength.

(b) Deploy Central Para Military Forces specially trained and equipped for anti-Maoists operations in affected areas.

(c) Integrated development of under developed areas to remove socio-cultural alienation.

(d) Formation of Local Resistance Groups which have proved successful in Bastar region of Chattisgarh.[10]

The Central government is also providing extensive financial assistance to states through Security Related Expenditure (SRE) directly to districts affected by violence. Andhra Pradesh alone has been given Rs 8.1 Crore under the SRE and Rs 79.73 Crore under Police Modernisation Scheme for 2004-05 which was supplemented by a further Rs 80 Crore. Under the Backward District Initiative Rs 360 Crore has also been allotted to develop physical and social infra structure.[11]

Terrorism and insurgency is an idea and not a physical quantity.[12] Repression, expulsions and restrictions on free speech are no solutions for ending terrorism as per the *Economist* study based on a comparison between the anarchist terror of the late 19th Century and jihadism of the present.[13] Thus a holistic policy for conflict resolution to include an independent and functional judiciary, free parliament, public/parliamentary control over the Armed Forces and secret service, independent media, a free and fair election mechanism and opportunities for economic enterprise needs to be evolved.[14] National policy also needs to integrate diplomacy and development assistance abroad, downstream governance to bridge the development divide, develop strategies for border and immigration control, combat terrorism and counter proliferation of WMD destruction, particularly bio-terrorism and chemical terrorism.[15]

Policy Initiatives

Political Lead - The Starting Block. Alleviation of grievances can be achieved only through the political process which needs to be rejuvenated in affected states and districts. Experience of overcoming naxalism in West Bengal and Kerala, the original naxalite affected states in the 1970s denotes that socio economic empowerment of the oppressed undertaken through a political process resulted in overcoming the menace.[16]

Functional Democracy. The concept of democracy includes respect for rights to income and property, effective institutions for resolution of conflicts and synergizing divisive societies, employment generation, reducing sense of indignity and development of civil society. In India, democracy has been sadly restricted to elections. Debasing main stream politics has also led to mafia control of elections in areas which are affected by Naxalism thereby, rendering these into a sham of numbers achieved through a politician-criminal-bureaucratic nexus. Broad basing democracy would thus be one of the prime initiatives to ensure down streaming power to the people.

Effective Governance. At the national level, effective governance should achieve trickle down effect, be it in maintenance of law and order, delivering aid or justice. Monitoring public expenditure is an essential facet of governance. Increased public funding is no guarantee for results. India spends 4.1 per cent of Gross Domestic Product (GDP) on education with a literacy level of 65 per cent while China, Thailand and Sri Lanka spend 3 per cent of GDP but have literacy rates over 90 per cent.[17] A model of governance exploiting information technology initiatives such as, *lok vani* adopted by some states or the *e choupal* model of India Tobacco Company would provide succour to the needy at the grass roots, eliminating basic grievances.

Global War on Terror. India is an important constituent of the global effort to restore order in failed states under the United Nations aegis. Out of the 59 United Nations peace keeping missions launched so far, India has been a part of 41.[18] At the regional level, an effective mix of Gujaral and Indira Doctrine, which entails a firm yet empathetic dealing with neighbours is highlighted.[19] In line with

this, the government's recent initiative in Afghanistan of providing US $50 million for capacity building, training the police and provision of non lethal equipment and vehicles need to be followed up with other neighbours, be it Nepal or Bangladesh.[20] The Spanish premier has perhaps put the spirit of cooperation by like minded nations most aptly as creating an, "alliance of civilizations".[21]

Legal and Legislative Issues

The need for just and fair legal provisions in disturbed states can be highlighted by recent outrage in Manipur over the Armed Forces Special Power Act (AFSPA) and withdrawal of the Illegal Migrants (Determination) by Tribunals Act in Assam.[22] Since modern threats are multi-spectral such as economic, information and so on, there is a need to empower the state to combat these through a single act. The US has evolved an all encompassing legislation in the form of the Patriots Act 2002, the purpose of which is, "to deter and punish terrorist's acts in the US and around the World, to enhance law enforcement investigatory tools and for other purposes."[23] This provides for, "enhanced domestic security against terrorism, intense surveillance procedures, protection against money laundering, bank secrecy, immigration provision, strengthening criminal laws against terrorism, removing obstacles for investigating terrorism, providing for victims of terrorism and so on."[24]

Our own experience in having a variety of acts for different areas and regions suggests that an all inclusive act as the Patriot Act may be seen as less discriminatory and has been recommended by commissions as the Reddy Review Committee tasked to review the most controversial AFSPA. The Committee has recommended that its provisions should be included in the Unlawful Activities (Prevention Act) to be made applicable to all states uniformly.

Legal provisions to improve transparency in governance are also essential. The Right to Information Act has been introduced, other legislative measures as the step by Jammu and Kashmir Government of creating an Accountability Commission under the *Ehtisaab* (Accountability) Bill to reduce corruption and improve accountability are recommended.[25] A whistle blowers policy could also be initiated at the national level. The time frame for introduction of legislations also needs to be reduced.

Financial and Identity Controls

Surveillance of money laundering, black money generation, corruption, drugs and crime money are essential facets of denying financial support to militants. Legislation to reduce multiplicity and duplicity of existing provisions which has led to diffusion, under a centralized finance control act is recommended.

National Identity cards are a necessity at least for those living on the borders to begin with while a large many may already be within the purview of identity mapping through measures such as credit cards and mobile connections, which could be exploited for immigration and money control.

Improving Policing - the First Line of Defence

Policing is the first line of defence. Improving policing needs policy review, some suggestions are as follows:-

(a) Update the antiquated Indian Police Act 1861.

(b) Free police from executive control in emergency situations such as 1984 riots in Delhi or the Gujarat riots with accountability with the Director General of Police.

(c) Improve standards of recruiting.

(d) Improving police image, discipline, turn out, human approach are issues within the domain of the Superintendent of Police and should brook no political alibis.

(e) Outsource non core police jobs.[26]

III

SYNERGY IN CONFLICT MANAGEMENT

The Problems of Synergy. The problems of synergy in Indian internal security management are challenging. Since law and order is a concurrent subject, central and state governments have overlapping responsibilities. At the Centre, internal security management is a dual domain responsibility between Ministry of Home and Defence. The varied types of security forces, infantry units, Rashtriya Rifles, Assam Rifles, Border Security Force, Central Industrial Security Force, Seema Suraksha Bal and Indo-Tibetan Border Police Force with different organisations, competencies and cultures defy harmonisation.

Synergy - The Models

Some of the models for creating synergy are discussed as follows:-

(a) The US Department of Homeland Security is the most recent example of synergistic policy. It was created post-11 September 2001 and integrates 22 agencies and 180,000 government employees thus unifying a large number of federal functions under one agency. This was evolved after a comprehensive strategy for homeland security was developed focusing on six key areas - intelligence and warning, border and transportation security, domestic counter terrorism, protection of critical infra structure, defence against catastrophic threats and emergency response and preparedness.[27]

(b) France has achieved synergy without major re organization but by having judiciary, anti terrorism police and intelligence agents operating in tandem. Thus France's top terrorism expert is Jean Louis Bruguiere, a judge.[28]

(c) Technology can also facilitate synergy by networking forces, seamlessly integrated on a common situational awareness platform under one canopy.

Ministry of Internal Security - Apex Level Organization

Setting up a Ministry of Internal Security Management is a necessity for coordination in the contemporary threat envelope. The model of Department of Homeland Security could be adopted with variations suiting Indian conditions. The broad tasks for this ministry will be as follows:-

(a) Management and control of forces employed for internal security.

(b) Border management.

(c) Protection of critical infrastructure and counter proliferation.

(d) Legislative measures related to internal security.

(e) Disaster management.

This would enable district administration to interact directly with Ministry for Internal Security Management with the state administration having a veto in case of emergencies, thereby

speeding up the process of addressing emergent law and order situations.

Integrated Counter Insurgency (CI) Grid

At the operational level an all inclusive, integrated CI grid is an essential facet of synergy. Integrated grid has been highly successful in Punjab breaking the back of the militancy in the 1990s, reports indicate that a similar grid based primarily on police deployment has been successful in Tripura.[29] An integrated CI grid will comprise of the following:-

(a) An intelligence grid linking human as well as electronic intelligence networks.

(b) A defensive arrangement comprising of central police organization forces and armed police with para military forces employed for high threat targets.

(c) An offensive grid primarily of army and special forces units.

(d) A network of village defence committees in rural and neighbourhood watch committees in urban areas.

(e) An information and civil affairs grid delivering governance through civil and political affairs and perception management.

IV

EXPLOITING INFORMATION - THE DIMENSION OF THE FUTURE

Intelligence, Information and Political Affairs

The control and elimination of militancy at low cost can be based on a combination of excellent intelligence work, effective political action and acceptance of controls by people.[30] In the information age, perception management is an essential tool with multi faceted technological and knowledge aids to bring about change in attitudes and beliefs. Thus in Palestine, leaders as Mohammad Abbas were persuaded that suicide bombings and rocket attacks on Israeli civilians did not further the Palestinian aim, which led to lower levels of violence.

Perception Management Themes

Perception management includes actions and not mere words, to win the battle of ideas and make the more rationale jihadists realize that terrorism and violence seldom achieve desired ends.[31]

It also includes exploiting non violent strains in militant organization as the Hamas which have a network of social services, to veer it to the political mainstream, despite a parallel trail of bloodshed.[32] A myth and reality paradigm of perception management themes evolved for Kashmir can demonstrate the effectiveness of this strategy as denoted in Figure 3 below.

MYTH	REALITY
Kashmir is controlled from Delhi	1. Special constitutional provision exist granting a differential status to Kashmir. 2. Kashmir has been exclusively ruled by Kashmiris except for short periods when terrorism had made governance impossible
Islamic identity has been compromised with Kashmir remaining in the Indian Union.	India's core ideology of secularism is based on Kashmiriyat.
One lakh people have sacrificed their lives for freedom in Kashmir	Total casualties are about 40,000 with 15,000 civilians mostly killed by terrorists.[33]
Kashmir is bled by Indian profligacy	Kashmir is bled by Kashmiri profligacy as the opulent mansions adorning Srinagar - Baramulla bye pass will prove.

Figure 3

Leveraging Influence of the Media

Modern terrorist organizations are highly information sensitive and target violence to influence opinion, lower public and forces morale and elevate terrorist spirit. For instance in Fallujah in Iraq, a car bomb was aimed at a convoy of female marine soldiers.[34] Correspondingly, the approach of the government towards information management is typically, "officialese". A media centre should be established as a credible source of information and should be effectively geared for incident management. Government agencies should speak in complimentary voices based on facts and not second guessing. Political leaders should avoid falling prey to the favourite journalist ploy of creating controversies and contribute to positive control of the media space.

V

OPERATIONAL STRATEGIES IN CI

Models of Employment. The aim of operational strategies in CI for the Armed Forces would be to ensure that multi dimensional

capabilities are retained at all times. To attain this we have essentially been following different models as follows:-

(a) Reskill, reorientate and employ existing units such as infantry battalions.

(b) The Rashtriya Rifles model of specially organized forces for combating insurgencies by milking regular units.

(c) Specially trained counter terrorist units as National Security Guard.

Recommended Model. An emerging integrated model is the Three Block Force proposed by ex US General, Charles C Krulak who states, *"In one moment in time, our service members will be feeding and clothing displaced refugees-providing humanitarian assistance. In the next moment, they will be holding two warring tribes apart conducting peacekeeping operations. Finally, they will be fighting a highly lethal mid-intensity battle. All on the same day, all within three city blocks. It will be what we call the three block war."*[35] Based on the Rashtriya Rifles, this model could be introduced, which while retaining CI proficiency would add a 60 battalion increment to army's conventional capability.

Leveraging Air Power in CI

Traditionally we have restricted air power to logistics support in CI operations. As the Chief of Air Staff stated recently, "We have been providing logistics support to the forces (in CI) - no such instructions (on air cover to Territorial Army personnel) have been given so far"[36] Israeli employment of air power for precision targeting in Gaza succeeded in preventing infiltration, enforcing curfews and liquidating terrorist cells by a combination of accurate intelligence, improved command and control, seam less target coordination and upgrading fuses and timing devices.[37] This it is claimed reduced the ratio of terrorists to innocents killed from 1:1 to 12:1.[38] While restrictions of terrain in the Indian scenario may be inhibitory, the concept can be exploited in situations such as destruction of terrorist hide outs in high altitude as during *Operation Sarp Vinash* or stand off attacks on terrorist hide outs across the border.

Exploiting Naval and Air Force Expertise

CI battles are no longer, "boots on the ground" actions but involve sophisticated electronic, information and soft target operations which can also be undertaken by units of the Indian Navy and Air Force. Exploiting these in the integrated CI grid for value addition would release specialist Army units for continued honing of skills for conventional operations.

Border Fencing

Border fencing is a prime requirement across the Western as well as Eastern borders the porosity of which has been effectively exploited by a vast swathe of anti national and anti social forces. Its effectiveness has already been proved in Punjab earlier and now in Kashmir.

People Friendly Operations - Strategy of Differentiation

The Chief of Army Staff has identified people friendly operation as the prime strategy for combating militancy. The militant hierarchy generally comprises the hard core, technical experts as explosive specialists, the middle core, new entrants, under ground and over ground sympathizers. These operate amongst the general populace whose involvement could vary from indifference to active sympathy. People friendly operations imply tackling each stratum in the hierarchy differently so that the last tier is not alienated while the top tier is systematically eliminated by focused operations. To ensure that human rights are not violated, legitimacy of each operation needs to be established before launch and the authority to open fire designated. There is a need for a security forces ombudsman as the Independent Police Complaints Commission of the United Kingdom which has the authority to dissect internal police inquiries, carry out investigations and recommend criminal prosecutions. The recent killing of Jean Charles de Menezes in London was investigated by this Commission which follows the Northern Ireland model and is widely accepted in the troubled province.[39]

Launching operations leveraging on information is another essential facet. Information can be provided by a variety of sources, agents, bugs, thermal surveillance of targets and unarmed aerial vehicles. Collaborative networks should be established exploiting

communication technologies so that a common picture is available at all levels, battalion, brigade, division and above.

Conclusion

Modern threats are irregular, popularly synonymed as, "asymmetric". While violence is an intrinsic part of militant strategies, state power has to employ varied means to tackle threats which are proving all pervasive particularly for developing nations as India, caught in a vortex of sub anarchical regimes on its periphery as well as pockets within. Armed forces when called upon to combat militancies need to employ dynamic rather than violence centric means to address them while simultaneously retaining the power for conventional engagement. This may appear a tall order but is feasible if holistic measures are undertaken as outlined in the paper and revolutions addressed through systemic rather than purely kill-kill strategies.

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"Thimayya of India : Without Doubt the Greatest"

Major General E D'Souza, PVSM (Retd)

March 2006 marks the 100th birth anniversary of, perhaps the greatest soldier the Indian Army has produced. He is none other than "Thimayya of India" as this Officer and Gentleman is described by Geoffrey Evans. He was born in Coorg. A statue of General K S Thimayya, distinguished soldier statesman, stands proudly in the heart of Madigeri, Coorg.

This piece is by no means a mini biography or encyclopedic profile, but is penned by one who had the proud privilege of serving under him from 1945 onwards when the then Brigadier Thimayya had the distinction of being selected to command the all Indian 268 Indian Infantry Brigade designated to be part of the British Indian Division (BRINDIV) of the British Commonwealth Occupation Forces (BCOF) in Japan.

Being a war time Indian Emergency Commissioned Officer of the Maratha Light Infantry in the mid 1940s, I was proud to hear of the exploits of Lieutenant Colonel K S Thimayya, then commanding a battalion of the Hyderabad Regiment in the Burma Campaign and award of the Distinguished Service Order (DSO). The citation reads, *inter alia*, "Lieutenant Colonel Thimayya handled every situation with cool judgement and cheerful confidence" during the severe fighting at Maungdaw in the spring of 1944. He was then one of the three Indian Commanding Officers, the other two being Lieutenant Colonels Thorat and L P Sen, involved in the vital battle of Kangaw where his performance was described by Major General 'Lakri' Wood, GOC 26 Indian Infantry Division of the Fourteenth Army, as "outstanding". Brigadier K S Thimayya, DSO, was the first Indian Commissioned Officer to command an operational brigade in Burma. Little did this writer dream that, he would be serving under this distinguished soldier at the end of World War II.

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It was decided that the Indian Army would send an all Indian brigade as part of BRINDIV, to join the BCOF and oversee the demilitarisation of post-war Japan. As all the other Maratha Light Infantry battalions were deployed, in Trieste, and Java, the 1st Battalion that had won a Victoria Cross in Italy, although it had never faced the Japanese, was selected to join this force in recognition of the contribution of the Maratha Light Infantry in World War II. The Indian Army representation in BRINDIV was drawn from all classes and communities.

Brigadier Thimayya had under him 5/1 Punjab under Lieutenant Colonel Maurice D'Apice, 1/5 Maratha Light Infantry under Lieutenant Colonel D W H Leeming, DSO, and the triple VC 2/5 Royal Gurkha Rifles commanded by Lieutenant Colonel E P Townsend, all British Officers. Both his principal Staff Officers were also British, viz Major James Heard of 6/13 Frontier Force Rifles, the Brigade Major, and Major Tom Corrigan of the Queens Regiment, the DAA&QMG. Brigadier Thimayya earned respect and was accepted by all as their Commander because of his cheerful disposition and judging his Officers on merit. He was proud of his own Regiment, the 19 Hyderabad, but he was never parochial in his dealings. The only representation of his Regiment in BRINDIV was the 19 Hyderabad Regimental Centre Brass Band. He could well have asked for his personal staff from his Regiment but did not do so. His staff was drawn from all classes and creeds; for instance Major Gonsalves and Lieutenant Colonel (later Major General) Yakub Munshi.

His Brigade HQ was located in the town of Matsue in Japan, the Prefectural Capital of Shimane Ken, Southern Hoshu. His popularity, among the Allied Troops including the Americans through their representatives in the American Military Government, and other Commonwealth Troops (AMGOT), was to be seen to be believed. His approach to the subjugated and defeated Japanese was humane, yet firm, so much so that when he was prematurely recalled to India for bigger things, there was universal regret among them. His dependability, tact and fair mindedness may be assessed from one incident. 2/5 Royal Gurkha Rifles, stationed at BRINDIV HQ Okayama, commanded exclusively by British Officers, more or less mutinied because of the differential treatment meted out to its men by British Military Police who, they justly felt, were unduly

targeting them for being friendly with Japanese. It was a serious matter. Major General Cowan, GOC BRINDIV was from the same Regiment. There would have been a major scandal. So HQ BCOF sought Brigadier Thimayya's intervention to resolve this ticklish issue. He went down to Okayama where the Battalion was located, first met the Gurkha Subedar Major, then the VCOs and finally some of the aggrieved men, and after a patient hearing he resolved the problem to the satisfaction of all concerned, but there was an aftermath. When India was granted independence in August 1947, the British Officers were quite certain that 2/5 Royal Gurkha Rifles, the pride of the 5th Royal Gurkhas (FF), would opt for His Majesty's Gurkhas. But to their utter shock and surprise, it decided to continue to serve in the new independent Indian Army. If personnel of this famous Battalion decided to do so, it was because of the humane intervention of Brigadier K S Thimayya.

In 1948, Major General K S Thimayya, DSO, was GOC 19 Infantry Division in Jammu and Kashmir responsible for security of the Valley. His exploits in the Kashmir Valley are well known. Suffice it to say that had Pandit Jawahar Lal Nehru listened to Major General Thimayya, who asked for just three more months to reach Muzaffarbad, we would not be facing the Kashmir problem. The author was tasked to provide a Guard of Honour at Srinagar Airfield for Panditji, accompanied by Sheikh Abdullah, Sir Girija Shankar Bajpai, the Foreign Secretary and Major General Thimayya, GOC 19 Infantry Division. It was a great honour to command this Guard of Honour on Panditji's first visit to the Valley after the 'invasion'. After Panditji and Sheikh Abdullah had moved off, Major General Thimayya, with a wink and a wave, said "I remember you". Small gestures like this exemplify the greatness of a born leader.

Major General Thimayya was visiting the Indo Pak border brigade commanded by Brigadier Sadanand Singh to update himself on the situation on this sensitive part of the border. The author was then the Brigade Major. Major General Thimaya must have been told by the Brigade Commander that his Brigade Major had been posted there after the Defence Services Staff College Course. When we met, he said words to this effect "Well, so you have come from the Staff College. I am sure you got through the entrance examination through a competitive vacancy by writing important points on your cuffs! Well done".

From there the author was posted to the UK. While there General Thimayya was selected to head the Neutral Nations Repatriation Commission (NNRC) in Korea. It was a tough assignment and to implement it, he was given an Indian Army force commanded by Major General S P P Thorat, his colleague in Burma. His experience in Japan helped him to face the odds with typical calm. So how does the writer fit into this situation? The Military Adviser's Office in London, was given the task of preparing the ship to carry the Indian Force to Korea and that task was entrusted to the author. Once again he was to have the privilege of being associated with "Thimayya of India". Two close friends were in that force as Observers; one Major Mark Valladares, Bengal Sappers, and the other Major (later Lieutenant General) Mathew Thomas, 2 PARA MARATHA who was with his battalion that was flown in. Also in the NNRC were some Indian Catholic Priests from Bombay known to the author who were inducted to look after the religious needs of both sides. They too spoke in the highest possible terms of General Thimayya and his masterful handling of the difficult task. It must have been this experience that led to his being nominated to handle yet another difficult international assignment on behalf of the United Nations; to head the UN Commission in Cyprus. It was on 19 December 1965 that "Thimayya of India" breathed his last after a heart attack. On 22 December 1965 a solemn farewell was accorded to him at Nicosia Airport as his body was flown to Bangalore in the presence of a large number of dignitaries.

The fitting tributes paid to him by the Cypriots and Turks say it all. Among those who paid tributes were: Mr Carlos Bernades, Representative of the UN Secretary General; Mr S Sen, High Commissioner; Colonel Arvind Jatar, MVC, Indian Contingent, United Nations Emergency Force (UNEF); Colonel J L Drewry, DSO, Deputy Chief of Staff and Brigadier A J Wilson, MBE, MC, Force COS. The pall bearers were from the Canadian Contingent and the Guard of Honour from the 2nd Battalion Canadian Guards. But this was not all. Lavish tributes were paid in the UN General Assembly as it stood in solemn silence for a minute after Secretary General U Thant announced the death of General Thimayya. The tributes were followed by many more; the representatives of Cyprus, Great Britain, Greece, Turkey and India. U Thant spoke of the General's "military ability, wisdom, his integrity and above all his

warm human qualities, a splendid example to those soldiers of peace ".

A very low key last rites were held in Bangalore. Except for the Southern Army Commander, Lieutenant General Moti Sagar and local Officials, very few of the top brass from Delhi, not even the Chief of the Army were present. But the people who knew him and admired him were there to share the grief of Mrs Nina Thimayya and the family members.

Today, it is a matter of shame that except for people of Coorg and the handful who still survive, know of this great soldier. His regiment certainly does, and there is in Ranikhet, the home of Kumaon Regiment, a room specially dedicated to him where memorabilia of the General are displayed for all to see.

The memory of "Thimayya of India" remains firmly etched in the memories of those who came under his magnetic and benign influence. Like the Eternal Flame, he will be remembered for all times.

Impression of my visit to Pakistan

Commodore R P Khanna, AVSM (Retd)

Are India Pakistan relations on the mend? Do recurring terrorist actions in India, including the 30 October 2005 serial blasts in Delhi prior to Diwali and Id send wrong messages? Are the terrorist outfits determined to wreck the peace processes? Are they continuing to brainwash young men, including sophisticated, western educated with the promise of *jannat* or heaven and *hoors* or angelic faces if they engage in jihad, militancy in the month of *Ramzan* and convert themselves as human bombs around the world in important cities, trains and buses? Is the *mullah's* influence increasing or diminishing? Is Pakistan genuinely curbing terrorists or engaged in deluding the world by a few captures and some military and police actions to show that they are serious about the war on terrorism and they are a frontline State in this war? Is Pakistan's move for opening the Line of Control (LoC) in Kashmir just a face saving signal or is it a genuine effort, alongside more trade routes with India as well as people to people contacts through exchange of cultural and intellectuals' visits to each other's country? Will the *jihadi* outfits, whose political outfits, rule the North West Frontier Province and have a strong presence in Pakistan's Parliament be able to undo whatever the Pakistan Government is trying to achieve by opening up to India? Have Pakistani terrorist leaders shifted their base to Bangladesh, which is now the world's terrorist hub and with the government there turning a blind eye to the presence of terrorist leaders from Pakistan, India's North Eastern States and even South East Asia there? Is it Pakistan's secret agenda to work for the Islamisation of the world, while using the present time as a breathing space for the ultimate objectives?

These are several questions that come to my mind and after a visit to Pakistan I have tried to discuss some of these issues. Confidence Building Measures (CBMs) by India and Pakistan have had a positive impact on the South Asian scenario. From despair to hope - these are the new signals in 58 years after the two countries became free and fought three wars. The mullahs, militants

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and the terrorists may be breathing fire, but most Pakistanis prefer to ignore them. They may hold peace in South Asia to some kind of ransom, they may threaten the rulers of Pakistan, and they may be running the madrassas and churning out campaigners of hate. Yet there is optimism. The Pakistani rulers may not be writing them off, but they might be trying hard to contain them in spite of the many odds they face and India may be at the receiving end of their activities.

The veneer of courtesy Pakistanis show towards Indians impresses visiting individuals and groups, as this writer would like to acknowledge after a recent visit to Pakistan. Their hospitality and warmth touched our hearts. This is also the Pakistani experience of Indian warmth and hospitality. They are greatly impressed by the openness of Indian society; market places, approaching world class now, and freedom of expression. In this respect, the Pakistanis envy us. They also envy the great diversity and ethnic variations, which are full of colour. Not that the Pakistanis do not have regional diversities of their own, but India to them is kaleidoscopic and unique.

My brother Colonel R N Khanna, who graduated from the Government College, Lahore, in 1941, received an invitation from the college to attend its 140th Anniversary. He asked me, my wife, and our sister to join him so that after the college celebrations, we could visit our native place, *Pind Dadan Khan* as well as Bhakwal, Sharakpur, Mardi Baha-ud-din and Rawalpindi where my father served as a government doctor prior to the Independence in 1947.

We left Delhi on 20 March 2005, by *Shatabadi Express* and travelled comfortably. We arrived in Amritsar in the afternoon and stayed in a suite at the Golden Temple Complex. The visit to *Harmandar Sahib* was a memorable experience. *The Darbar Sahib* atmosphere was peaceful, sombre and relaxing amid bright lights reflecting from the Sarovar from which the city of Amritsar takes its name. The *kirtan* or devotional music was indeed soothing.

We left for the Wagah border the next day. This was an experience of a lifetime. We completed Indian Immigration formalities at the border on the Amritsar side and walked across to enter Pakistan. The Indian porters, who took our bags, were relieved by Pakistanis with smiles, an indication that we were welcome to

their country. There was no bargaining by the Pakistani porters and they accepted whatever we gave them with grace. The immigration officer at the Pakistan border was courteous and offered us a cup of tea. The immigration formalities were completed while we sat in his office. We took a taxi to the Gymkhana Club in Lahore where we were informed that there was no accommodation available. However, the manager telephoned what is called "The Seven Star Guest House" opposite the Gymkhana Club where accommodation was provided.

At Lahore, my wife, myself and my sister were invited to dinner hosted by the Government College Celebration Committee to join my brother. We met the elite of the city and cordiality was abundant. We went sightseeing and tasted exotic ethnic food in the well lit *Anarkali* Food Bazaar and visited the *Gurdwara* in the Lahore Fort. We joined the *Langar* and requested *Gurdwara* Bhaiji to do *"Ardas"* for the welfare of our family. At the *Gurdwara* most of the *Sewadars* were Muslims. They were courteous. They said they were volunteers in an organization, which believes that there is only one God.

On the last night of our stay in Lahore, my brother asked the taxi driver, who was to take us to Islamabad the next day, to show his driving licence. It came as a shock to us that the driver did not have a valid licence. He told us that this should cause us no worry because he will be able to bribe the policeman and take us safely to Islamabad. This was not acceptable to us, especially in a foreign land. If at some point there was verification or a road accident, we could have been detained by the police for questioning for utilizing the service of an unauthorized driver or cab. I am narrating this incident to show the attitude of a common man in Pakistan which is no different than in India about bribing a policeman and getting away from crime. The owner of the guest house came to our rescue and advised us to go by a luxury coach to Islamabad and take a taxi in Islamabad to visit different places.

We left Lahore by coach the next morning. The journey was comfortable and the roadways well maintained. The attractive hostess kept a steady flow of refreshments. I had the opportunity to interact with some of the passengers, including a journalist, who was the daughter of a retired Rear Admiral in the Pakistan Navy. Her father had attended a course at the Royal College of Defence

Studies in Britain along with Vice Admiral S K Chand of the Indian Navy, a family friend of ours. This established a sort of rapport. Incidentally her father had done a specialist course in Navigation and Aircraft Direction at *H M S Dryad* in the UK.

We arrived in Islamabad at 2.30 p.m. on 24 March 2005 and drove straight to the Royal International Guest House, where the Indian Naval Adviser to the Indian High Commissioner to Pakistan, (Captain Ravi Pandit), had arranged accommodation for us. The owner of the guesthouse, Mr Karim made us feel at home.

Apart from sightseeing and shopping, I went to visit the Islamabad Golf Club and bought some souvenirs, including a golf cap.

We visited Punja Sahib, the famous *Gurdwara* where Guru Nanak had left an impression of his palm (Punja) to start a free flow of water for his devotees. The *Sewadars* were helpful. They did not let us go to collect food, but brought it as they said we were elderly people and their guests and it was their moral duty to serve us. *Punja Sahib* was truly serene.

As planned, we hired a taxi to visit Pind Dadan Khan, Mandi Bhau Din and Bhakwal, (having visited Sharakpur earlier when we were in Lahore). We had been to school in those places. Most of the places where we had stayed and the hospitals where my father worked as a doctor had been modernized, but in the school in Bhakwal, there appeared to be little change in the classrooms, the Head Master's office and the playground, except mats which have been replaced by chairs and tables. Seeing the seventh, eighth and ninth classrooms brought back memories of praises and punishment by the teachers in my days as a schoolboy.

We talked to some people in towns and villages where we had grown up. We were welcomed warmly by the residents staying close to our original homes. Their hospitality was typical of villagers in India. They spread "charpais" for us to sit and offered us "lassi", *nimboo pani* and food. At Pind Dadan Khan, my brother met a classfellow of about 70 years ago. Old memories and affection was relived. The same warmth was showered on us in Rawalpindi, where my parents had spent two years before migrating to India and this was an interesting experience. Although there were many changes in the residential areas, the Rose Cinema complex in Rawalpindi next to the hospital looked the same as before and was still screening *Hunterwali,* a popular film of those days.

On the last day of our visit, 29 March 2005, I called on Captain Ravi Pandit who invited the Air Force Adviser to his room in the High Commission. The Army Adviser, who was a Brigadier, offered to come over (typical of a Defence Officer), but I felt it was my duty to call on him in his office.

I had myself been Defence Adviser to the High Commissioner in Nigeria 30 years ago and we had an opportunity to exchange our experiences.

The High Commission's car with an Indian driver came to fetch me from the guesthouse. On the way he remarked that Pakistani security or intelligence was following us, but this appears to be a common practice. The Naval Adviser told me that there has been a welcome change and Indian diplomats are breathing somewhat easy.

The same evening we went to a restaurant, but the waiter there refused to present a bill, saying that we were their guests and it was their moral duty to do their bit for us. We politely refused the offer and paid the bill with a generous tip.

The next day, we went to Karachi to meet our friends, Sartaj and Rizwana, whom we had met in Lagos, Nigeria, where I was posted from 1973 to 1976 as Defence Adviser. They drove us to their large and luxurious house. I had a desire to visit a museum in Karachi, but we had little time. Our host's house was a museum of sorts.

They had collected rare pieces from all over the world, particularly India (Jodhpur and Jaipur) which they visit frequently and also curios from China, Bali in Indonesia and Malaysia.

Our Karachi visit was an eye-opener as it has been modernised and roads are good, shopping centers and malls are quite plush. Prosperity is evident in Karachi and every second car is a Toyota Corolla.

On 2 April 2005, my wife's birthday, our hosts lined up a celebration and they invited their brothers, sisters and cousins to dinner and laid on a cake cutting ceremony. This was most touching. We left Karachi on 4 April 2005 by Pakistan International Airlines (PIA) flight. It was comfortable and the crew took special care of Indian passengers. My general impressions are summarized below.

Like Hindi there is politeness in Urdu language. For greetings only *Salam Walekum* to be replied by *Walekum Salam* is used, instead of Good Morning, Good Evening, etc. The word *Khuda Hafiaz* is used instead of "God Bless You".

The Pakistani people have not forgotten their culture and by and large not taken to the Western way of life. Man in the street wears salwar and kameez. Very few literate middle aged women use Burka. Young girls and middle aged women wear elegant salwar and kameez and we did not see a single girl during the fortnight's stay in Pakistan, who did not have a *Duppatta*.

No student in school or college is allowed to wear jeans and trousers. However, we were informed that in private parties young girls do use jeans but do not wear the same in public.

From the elite of Pakistan, I got the impression that Mullahs try to whip up frenzy and hate campaign in the name of Islam. Their power has to some extent been curbed by General Musharraf.

The man in the street is not interested in Jammu and Kashmir. People we met said to us that this is not their problem. It should be left to the politicians to settle it once for all. However, this should not come in the way of people to people dealings. Their general remark in Punjabi was *Sanu Ki, Kashmir Kinnuu Jaave? Sadi lor hai Roti Kapra aur Makan* (We are not concerned as to whom Kashmir goes we need bread, clothing and shelter).

General Musharraf evokes a mixed feeling. Some people (mostly upper middle class) feel that he is the right man for Pakistan and democracy is hardly suitable for their country. On the other hand, man in the street remarks that rich are becoming richer and poor the poorer under Musharraf.

Most Pakistani show their warmth by saying *Aap hamare mehman ho, aur hamara farz hai hum aap ki khatir karen* (You are our guests and it is our duty to look after you).

In conclusion I feel that the Pakistani in general is friendly and is all for good neighbourly relations, freer travel and easier visits by their divided families in the two countries. They appreciate that the two countries have many people speaking the same language, and similar life style. They also appreciate that the trade between the two countries would help both countries in particular

Pakistan, as India manufactures most of the items and could supply at very reasonable prices. At present most of their trade is with China, Korea and Japan. Lastly, the Mullahs and hot heads try to spoil the atmosphere and are not for peace between the two countries or around the world.

I also made it a point to gather opinions about terrorism in general and particularly their attitude towards Jehadi activities in Jammu and Kashmir through discreet interaction with the people in streets, taxi drivers, shopkeepers and so on. They feel that the *Quran* does not permit terrorism and they are deadly against it. But when it came to Jammu and Kashmir, almost every one felt that whatever was happening in there, was a local uprising where freedom fighters were fighting against the Indian Armed Forces. This is a result of propaganda by the Pakistan authorities during the last five decades. However, the intelligentsia felt that terrorism is a worldwide phenomenon and is prevalent in India, Pakistan, Jammu and Kashmir, the US, the UK, Indonesia, Malaysia, Israel, Iraq and so on.

About Musharraf, my hosts felt that there is a welcome change in his attitude after the 11 September 2001 incident in the US and train and bus incidents in London. They felt that Pakistan is dependent for its economic development on the US and he has no choice but to at least outwardly show that he is taking strict action against the terrorist organisations.

The Coorg Medals 1837

Colonel K A Muthanna

During a visit to the United Service Institution of India (USI) at New Delhi in 2004, I chanced upon the specimen of the Coorg Medal 1837 in the medal display case in the library. This medal had been awarded by the British East India Company to some Coorgs.

Returning to the USI Library in June 2005, I decided to research the history of the Coorg Medal 1837. My research steered me to two of the most dependable written records - *The Historical Record of Medals and Honorary Distinctions Conferred on the British Navy, Army and Auxiliary Forces* by George Tancred[1] and *Medals and Decorations of the British Army and Navy 1897* by John Horsely Mayo, Vol I and II [2] and the internet web site http://faculty.winthrop.edu/haynese/india/medals/EICMed. htm#02086. The history of the Coorg Medals unfolded.

In 1837, there was a 'rebellion' in Amur Soolya in Canara, also referred to as the Sulya (present day Suliya in Dakshina Kanada district of Karnataka). The British propaganda gave an impression that the rebellion was confined to the Gowdas of Sulya. In fact, large number of Coorgs from Nalknaad and Bhagamandala joined the revolt. Some of Coorgs fought at the Battle of *Katkai-Sulya* along with Subedar Guddemane Appaiah Gowda. Some other Coorgs, led by their Dewans, *Ponnapah* (Cheppudira Ponnappa) and *Bopoo* (Apparanda Bopanna or Bopu) suppressed the rebellion with great gallantry. They had promptly intimated news of the 'rebellion' to the British and actively assisted in quelling the 'rebellion'. The effort of assisting the British in quelling the rebellion was construed as a unique display of loyalty to the British (East India Company). The Governor General-in-Council asked Lieutenant Colonel Mark Cubbon, the Commissioner of Coorg, 'to suggest the best mode of strongly marking by suitable distinctions, the sentiments of his high appreciation'.[3]

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Lieutenant Colonel Mark Cubbon, on the basis of the reports of the Superintendent of Coorg, Captain Le Hardy and others, recommended that the awards include 'Gold Medals for the two dewans, valued at 400 rupees each, and twelve at half that value for the Soubadars and principal chiefs; twenty Gold Medals, without chains, for the Parpatigars and others: ten of 50 rupees in value for Ryots who specially distinguished themselves; and 200 Silver Medals, without chains, for inferior leaders and distinguished Ryots, of the value of 10 rupees each, together with grants of land and presents of Pegu ponies, fowling pieces, shawls, clothes, turbans, and c, and a special plea for the Coorg, Soubadar Moonien, who, though 70 years of age, led on his men in one of the first attacks made on the rebels and slew his antagonist in single combat, but being inconsolable for the loss, on this occasion, of a sword which had been given to him by the great Raja Veerajeuder, the Commissioner had ventured, in anticipation of his Lordship's sanction, to promise him another, in the name of the Governor-General'.[4] .

All the recommendations were approved and sanction for the same conveyed in a letter dated 28 August 1837. The design for the medals was approved in a letter dated 30 May 1838 and the medals were struck at the Calcutta Mint. There were 344 medals which included 44 Gold and 300 Silver medals. The details of the medals and their costs as assessed by Captain Le hardy and recommended by Lieutenant Colonel Mark Cubbon are given in the table below.

Table - Details of the Coorg Medals 1837 and their costs[5]

No.	Articles to be Purchased or Manufactured	Cost	Weight of Medals	Final cost as incurred by the Calcutta Mint
2	Gold Medals with chains for the 2 Dewans, each at Rs 400	800	Each medal was to weigh about 9 Gold Mohurs or Tolas	Finally a total of 44 Gold Medals at a cost of Company Rs 3550.00 and 300 Silver Medals at a Cost of Company Rs 2343.12 were minted
12	Gold Medals with chains for Soubadars and principal chiefs at Rs 200 each	2400	Each medal was to weigh about 7 Gold Mohurs or Tolas	
20	Gold Medals with chains for Parpatigars and others, at Rs 120 each	2400	Each medal was to weigh about 4 Gold Mohurs or Tolas	
10	Gold Medals without chains for Jununah Ryots who specially distinguished themselves; at Rs 50 each	500	Each medal was to weigh about 4 Gold Mohurs or Tolas	

200	Silver Medals, without chains, for inferior leaders and distinguished Ryots, @ Rs 10 each	2000	Each medal was to weigh about 10 Rupees	1426
	Total	8100		

The design of the medals was[6]:-

Obverse : Circular medal, 50 mm. A Coorg warrior with sword raised and a musket in his left hand. An inscription along the edge in Karanese "*For a Memorial of Fidelity to the Government of the East India Company in suppressing disturbances, during the months of April and May 1837."* and,

Reverse : Trophy of Coorg arms surrounded by a wreath. Inscription around the edge "*For Distinguished Conduct and Loyalty to the British Government"* and below, "*Coorg, April 1837."* (Despite best efforts, the names of the recipients, other than the two Dewans, Ponnappa and Bopu, and Soubadar Moonien; are not readily ascertainable.)

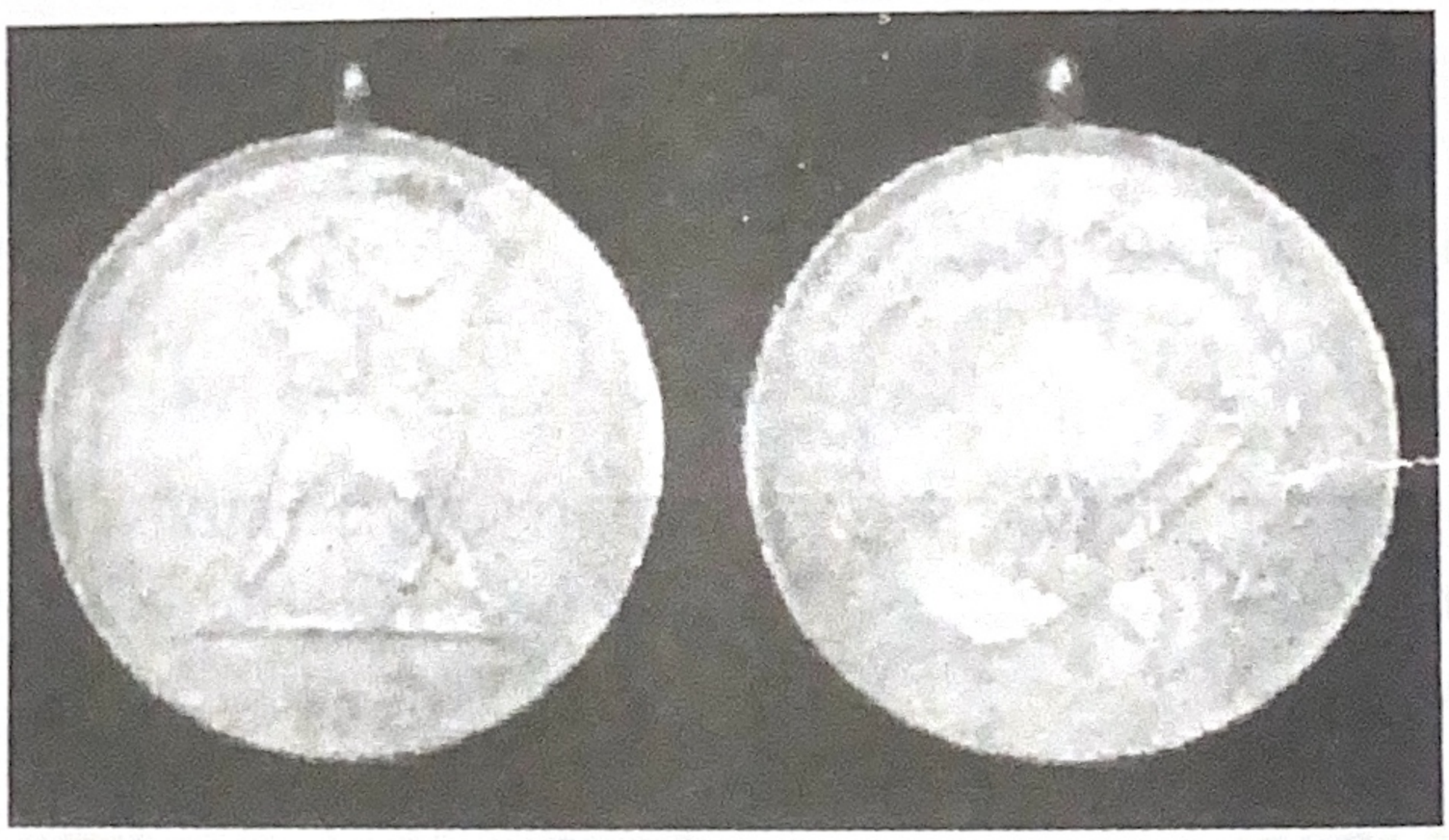


Fig. 1 : The Coorg Medal 1837 (Gold)



Fig. 2 : The Coorg Medal 1837 (Silver)

The significance of the award of the Coorg Medal 1837 is that the British East India Company, thereafter (from 1837), instituted the practice of award of the medals *"Order of 'British India'* for officers and *"Order of Merit"* for Soldiers in their army; and ceased the award of special medals for gallantry in the field.[7]

Havildar Chookalingam of the Sappers and Miners of the Madras Army (of British East India Company) was awarded the "Order of Merit" with retrospective effect for displaying conspicuous gallantry during the advance of the column under the command of Colonel Foulis, during the operations in Coorg, in 1834.[8] **This, in effect made him the first recipient, and Coorg the site, of the first institutionalised award for gallantry in modern times.**

The "Order of Merit" came to be referred to as the "Indian Order of Merit" to differentiate it from the Order of Merit that commenced to the awarded to the British in England and elsewhere. The British, nearly two decades later, instituted the "Victoria Cross" for gallantry in the Crimean War.

References

1. George Tancred, *The Historical Records of Medals and Honorary Distinctions Conferred on the British Navy, Army and Auxiliary Forces* (London : Spinks and Sons, 1891).
2. John Horsely Mayo, *Medals and Decorations of the British Army and Navy Vol I and II* (London : Archibald Constable and Co, 1897).
3. Tancred, n. 1, p. 256
4. Mayo, n. 2, p. 257
5. Details in table compiled from data given in Mayo, n 2, pp. 533-537. Columns 1-3 from Table on p 533, Column 4 - Indian Political Consultation 30 May 1838 No 2 on p 535, Column 5 - letter from Calcutta about Master dated 22 August 1839 on p. 537
6. Tancred, n. 1, p. 258 and Mayo, n. 2
7. Tancred, n. 1, p. 258
8. Tancred, n. 1, p. 255

Review Article 1

The Indian Army : A Brief History*

Brigadier S P Sinha, VSM (Retd)**

The book is an overview of the Indian Army, its evolution and contribution to national development. The narratives of wars, written by eminent retired service officers have a distinct advantage in that they are factual accounts analysed in the backdrop of broad strategic and national perspectives, without unduly infected by nationalistic fervour.

The genesis and evolution of the armies in India have been briefly traced from the ancient times to the present. The overview of the evolution of the military in the sub continent is objective. Chapter one attempts to trace the evolution of the Indian Army from the Mauryan period to the British era. The first recorded fact in Indian political history is the invasion by Alexander the Great in 327-5 BC. The military developments in the Maurya period were substantial, but the author laments that even great kings like Chandragupta Maurya lacked strategic vision. The Islamic invasions were brutal and devastating; not only wealth was looted, even more damaging was the grinding down of Hindu India. In the words of VS Naipaul: "The Muslim view of their conquest is a true one. They speak of the triumph of faith, the destruction of idols and temples, the loot, the carting away of local people as slaves... There are no Hindu records for this period. Defeated people never write their history."

Refreshingly, the events of 1857 have been recorded in the book with candour. The causes have been analysed objectively. Historians are divided in their view of the uprising; whether it was due to patriotic upsurge or an unplanned violent resentment of the British. However, there can be little doubt that this event gave birth to widespread arousal of national awareness.

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*__The Indian Army : A Brief History.__ *ed, Major General Ian Cardozo, AVSM, SM (Retd) (New Delhi : Centre for Armed Forces Historical Research, United Service Institution of India, 2005) 344p, Rs. 750.00, ISBN : 81-902097-0-1.*

**__Brigadier S P Sinha, VSM (Retd)__ has wide experience of counter insurgency operations in the North East. He is a former Dy GOC of a division which formed part of Indian Peace Keeping Force in Sri Lanka.

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Western writers have not adequately acknowledged the Indian Army's contribution in the two World Wars. The chapter on the World Wars fills the gap by recounting the sacrifices made by the Indian soldiers. The authors have covered all major campaigns in which Indian soldiers played a sterling role. At the end of the chapter on World Wars, mention is made of the Indian National Army (INA). The INA achieved very little in military terms, but it did invoke widespread sympathy amongst Indians.

The partition of the country was a traumatic experience. With the partition came the division of the Armed Forces between India and Pakistan. The princely states had army units of their own, which had to be integrated into the Indian Army. This was a prodigious task; the author has made a brief mention of it. But a little more detail about the Armed Forces Reconstitution Committee would have added value to the book since little is known about the problems of reconstitution by the present generation at whom the book is targeted.

Of great interest are the accounts of wars fought by the Indian Army since independence. Each war has important lessons for the future; and yet the official accounts of these wars except the 1947 India-Pakistan War are yet to be published. We have thus denied ourselves the benefit of learning from our past mistakes. It is ironic that the accounts of post-independence wars including India-China war of 1962 are available on the web site of *The Times of India* but the Government of India has yet to acknowledge these as official.

The greatest challenges faced by the Army were in the 1980s. The occupation of Siachen Glacier in April 1984, *Operation Blue Star* in Golden Temple at Amritsar in June 1984, *Operation Pawan* in Sri Lanka (July 1987 - March 1990) and *Operation Cactus* in Maldives in November 1988 point to the type of threats and challenges that will confront the Army in the future. The author has recounted these operations adequately, but has refrained from pointing out past military mistakes. For example, notwithstanding the confused political direction, why was the military command and control chain lack lustre in *Operation Pawan* in Sri Lanka? The way the chain of command functioned was unworthy of a professional army, which had only in the previous decade notched

a decisive victory against Pakistan and had decades of experience in fighting insurgencies.

Kargil 1999 was won by the infantry led by young officers; this is not to undermine the performance of other arms and services. Over the years, it has been reported that the quality of intake in our Officers Training Academies (OTA) was not up to the mark. How then did the young officers, barely out of training academies, perform so well in Kargil?

The chapter on counter-insurgency operations gives a detailed account of Indian Army's involvement in fighting insurgencies in the Northeast and Jammu and Kashmir. The narratives are well documented; the progression of insurgency in Jammu and Kashmir to proxy war and then to terrorism backed by Islamic fundamentalists based in Pakistan has been traced with clarity. A brief analysis on the evolution of counter-insurgency strategy over the years would have added to the value of the narratives.

India's role in the UN Peacekeeping Operations has a long and distinctive history- from our participation in Neutral Nations Repatriation Commission in Korea to the present commitments in nine of the sixteen UN missions. But the mandates of peacekeepers have changed over the years and so has the environment in which peacekeeping operations are being mounted.

The last four chapters focus on the Indian Army's significant contribution to nation building; this is acknowledged by the general public but the powerful bureaucracy has wittingly or unwittingly been reluctant to give it due recognition. Unfortunately, the political class, though appreciative of the role of the Armed Forces, has fallen in the bureaucrats' trap. For example, the Armed Forces hierarchy has been kept out of the decision-making loop, even on matters concerning national security. Significantly, this mindset is now changing.

The Indian Army nurtures sports, particularly adventure sports enthusiastically. Its record in mountaineering is world class. The encouragement that the Army gives to adventure and sports should inspire young men and women to join the Army.

Besides being a chronicle of the evolution of the Indian Army, this book is also a celebration of honour, courage and fidelity of the Indian soldier. This is best exemplified in the regimental spirit - the name and *izzat* of the regiment - for which soldiers are prepared to lay down their lives. The criticism of the regimental ethos by some on the ground that it goes against national integration is misplaced. The regimental ethos lead to bonding; in a broader sense it is inclusive of national identity. Any attempt to weaken this will be an invitation to doom and calamity, as Field Marshall Manekshaw warns; "In the name of God, desist from such folly. Neither God nor future generations will forgive the perpetrators of such misplaced nationalism, which will lead to the destabilisation of the famous Indian Army."

The Indian Army: A Brief History is a worthy effort to place the Indian Army where it deserves to stand - among the finest in the world.

Review Article 2

Central Asia-Present Challenges and Future Prospects*

Lieutenant General A M Vohra, PVSM (Retd)**

As Kapil Kak points out in his paper on 'India's Strategic and Security Interests in Central Asia', India's historic links with Central Asia go back to mid second millennium BC. He quotes Toyanbee who described Central Asia as a region, "where routes converged from all quarters of the compass and from where routes radiate to all quarters of the compass." Its substantial reserves of oil and vast resources of gas are vital for both India and China. In the 'Foreword', Amitabh Mattoo states that the emergence of independent States in Central Asia in the 1990s has brought this region into the strategic horizon with major powers; US, Russia and China competing to gain control over the region for natural resources; oil and gas. India has stakes in the developments of the region with regard to both resources and markets. It hopes to establish a direct road link with Pakistan agreeing to transit facilities. Nagendra Rao highlights in the introduction that the post Soviet Central Asian security situation has acquired significance in the context of the Taliban and Al Qaeda activities.

The book is in three sections; Internal Dimensions, External Dimensions and Indo-Central Asian Relations. R R Sharma in his chapter focuses on Central Asia's quest for internal democracy. He writes that the apparent homogeneity in the region under the Soviet Regime was deceptive. Their emergence as independent states is simply the result of the collapse of the Soviet Union. They have inherited a generally literate population, comparatively well developed state institutions, a modernised economic infrastructure and respectable levels of economic growth. However, the changed circumstances call for major economic and political reform; and overhaul of the political system. The political regimes

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*__Central Asia-Present Challenges and Future Prospects.__ *Edited by V. Nagendra Rao and Mohammad Monir Alam (New Delhi : Knowledge World, 2005), 354p, Rs. 680.00, ISBN 81-87966-34-3.*

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are devoid of legitimacy; facade democracies have been imposed. There is a total absence of linkages between the people and the government. Nagendra Rao in his chapter observes that the expectation of emergence of a prosperous region, when assisted by free flow of capital and ideas from the West, has been thwarted: all republics are suffering from the negative tendencies characteristic of transitional societies.

The present population of Central Asia can be traced back to nomads from Iran and Turkey much before the advent of Islam, which evolved a broad divide based on Iranian and Turkic communities. Subsequently, the Sunni Sect dominated in all five countries. In the post Soviet period, major Islamists have become active. Nagendra Rao's Chapter on, 'Religious Extremism in Central Asia', examines the activities of the 'Islamic Revival Party', 'Islamic Movement of Uzbekistan' and *Hizb-ur-Tahirin*. He observes that Islamic influence varies in the region. During the 75 years of the Soviet period, Central Asia was cut off from the rest of the Islamic world in social, cultural and intellectual terms and was involved in a modernisation process; high literacy rate, greater gender parity in educational and employment opportunities, secular and modern outlook. The author concludes that because of these factors, large sections of Central Asians still treat religion as a step backward. Secondly, the tribal, ethnic, regional and national loyalties are coming in the way of any supranational identity in this case, Islam. Thirdly, the nature and practice of Islam in Central Asia, which is largely influenced by *Sufism*, is not receptive to fundamentalism advocated by the current ideologies of the extremist organisations.

Section II of the Book looks into the prospects of a 'Strategic Partnership', between Russia and China in Central Asia. Russia, China and the US wish to increase their influence in the region. The Russians and the Chinese wish to limit the US role and advocate a multi-polar strategy. Mohammad Munir Alam examines the problems and prospects of the US policy in Central Asia. He feels that by placing a priority on anti-terrorism in the US policy towards Central Asia, the US has shored up authoritarian regimes and encouraged public distrust of the US intention in the region. Two other chapters look into 'Islamic World and Central Asia' and 'Iran and Central Asia'.

Section III goes into 'Indo-Central Asian Relation'. In the introduction, Nagendra Rao argues that four objectives have become critical in India's policy priorities for Central Asia. First, neutralising security threats from *Jihadi* forces and drug traders. Second, developing transportation and communication links for enhanced access and connectivity. Third, maximising the share of economic benefits the region offers, particularly in the energy sector. Fourth, finding a fine balance between the priorities of the US, Russia and China that are actively engaged in this strategic region to establish their supremacy.

Examining the economic dimensions from the point of India's security interests in Central Asia, Kapil Kak quotes C R Raja Mohan's *Crossing the Rubicon* to say that lack of physical access and economic resources prevented India to achieve its objectives in Central Asia although, before its collapse, the Soviet Union allowed India to interact in the region.

The book covers the subject comprehensively and would be of value to policy makers apart from educating the public.

Review Article 3

US Intervention Policy and Army Innovation*

Lieutenant General S L Menezes, PVSM, SC (Retd)**

The book examines how the US Army rebuilt itself after the Vietnam War and how this has affected US intervention policy, from victory in the Gulf War to the failure in Somalia, the Bosnian and Kosovo interventions and the use of force post-11 September 2001. It sets out to analyse the changes in the US military intervention strategy by examining two separate issues: the nature of the US Army as it rebuilt itself after the Vietnam War, and the attempts by the US to establish criteria for future military interventions. The author argues that the US strategy traditionally relied upon national mobilisation to co-ordinate political aims and military means; he subsequently indicates how this changed to a formula of establishing militarily achievable political objectives prior to the use of force. Drawing on a vast body of material and on strategic culture and military innovation literature, he demonstrates that the strategic lessons were a product of the rebuilding of the US Army's identity as it became a professional all-volunteer force and that the US Army's new doctrine developed a new 'way of war' for the nation, embodied in the AirLand Battle doctrine, which changed the approach to strategy. The book gives a practical analysis of how the interventions in Panama and the Gulf War vindicated this approach and brought a revived confidence in the use of force, while more recent campaigns in Somalia, Kosovo and Bosnia exposed its weaknesses and the limited nature of the US Army's thinking. The legacy of the US Army's innovation is also examined in their new strategic environment post-11 September 2001 Afghanistan and Iraq.

The tensions that exist between ideals and violence are inherent within society as violence lies at the heart of the foundational

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***U.S. Intervention Policy and Army Innovation - From Vietnam to Iraq.** *Richard Lock-Pullan (London and New York : Routledge, 2006), 291p, £70, ISBN 0-0714-65719-0.*

****Lieutenat General S L Menezes, PVSM, SC (Retd) is a former Vice Chief of the Army Staff and the author of** *Fidelity and Honour : The Indian Army from the Seventeenth to the Twenty First Century*.

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myth of any state. The US is no different, as it was born in the violence of the Revolutionary Wars and faced Civil War. The identity of the US has been put under great pressure by the violent events of 11 September 2001 and its aftermath. Terrorism is a very real danger, but there is also the potential calamity due to an extreme pre-emptive response as America has always faced threats and also exaggerated these threats to a large extent. During the Cold War, the US had a single enemy, Soviet Union, a demonised monolith, which had the key features of ideology, intercontinental weaponry and geo-strategic interests. The current times are in danger of being recast in that mould, with Islam, terrorism and China taking the three roles in the traditional understanding of threat. As Tariq Ali eloquently put it, "there is currently a danger of there being a clash of fundamentalisms: religious fundamentalism and imperial fundamentalism looking to discipline the world". For example, the US enforcing one code of international conduct whilst following a permissive one itself has become a key issue for the US and international relations. This is further complicated by the US being a technologically - based culture - "The more we become immersed in technology, the more difficult it is to be patient with the natural unevenness and unpredictability of living. We learn to close ourselves off".

Finally, the author postulates that the US culture has a problem coping with failure, there is a need, as the American writer Bill Holm said, for the focus to shift away from self-obsession and 'sympathetically imaging something outside'. The need for empathy runs in the face of America's hegemonic power being understood simply as a unilateral opportunity. The culture of fear pervades Western society, which means that problems are inflated, potential solutions overlooked and new challenges are transformed into issues of survival. There is still a need to come to terms with Vietnam, especially as 'We were humbled in Vietnam, purged, for a while, of a dangerous hubris'. Exaggerated responses and avoiding risk is counter-productive, especially when linked to a lack of hubris. To re-establish solidarity within its borders and engage with those without, the US needs to turn back to its visionary resources and face the issue of failure and the risk of engagement. The US Army needs to express that as well, and not just focus on the technical

aspects of the profession of war, or rely on its mythology of the Vietnam War and its lessons. It needs to be far more open in its innovation, to be a defender and embodiment of American values in an innovative fashion, and if that involves a lot of messy roles like peacekeeping and nation building, then so be it. That is why a nation pays for and raises an Army. There is no international institution that has proven capable of effective action without the power generated and exercised by the US. America's need and ability to create a vision that generates a creative approach to strategy is thus an issue for the world.

This book will be of interest to students of strategic studies, international relations and American politics, as well as to military professionals. It is part of the Cass Series in Strategy and History.

This new series focuses on the theory and practice of strategy. Following Clausewitz, strategy has been understood to mean the use made of force, and the threat of the use of force, for the ends of policy. This series is thus interested in ideas as in historical cases of grand strategy and military strategy in action. All historical periods, near and past, and even future, are consequently of interest.

Short Reviews of Recent Books

Captive Princes Zebunissa - Daughter of Emperor Aurangzeb. *Annie Krieger Krynicki (Karachi : Oxford University Press, 2005), 216p, Rs. 450.00, ISBN 0-19-579837-6.*

The book is authored by a French lady who has written many books and articles about the constitutional and political life in Pakistan, and was awarded *Sitara-e-Quaid-i-Azam.*

It deals with the life of Zebunissa, eldest daughter of Mughal King Aurangzeb, who was different than the other ladies of the Mughal Court. She was an accomplished poetess, wrote her own *Diwan,* built a personal library, employed a large number of scribes and translators and was influenced by *Sufism.* She did not play a major part in the Court, which many royal ladies did during various reigns. Yet she was imprisoned for over 20 years in Salimagarh Fort for sympathising with her youngest brother who had rebelled against her father. The major part of the book, however, deals with political history of the time reflecting qualities of ambition, lies, bribery and deceit which characterised the life of high personages of the time, who would not think twice before killing their brethren.

At some places the dates and names have got mixed up. The book is of interest to a limited readership.

Colonel V K Singh, VSM (Retd)

Islam, The State and Population. *Gavin W Jones and Mehtab S Karim (eds), (Karachi : Oxford University Press, 2005), 286p, Rs. 595.00, ISBN 0-19-5470044.*

The book is a collection of articles on population policies, fertility trends and reproduction health situation in the major Muslim majority countries. Birth control has been a polemical issue in the Islamic theology from the earliest days. Most Muslim jurists permit it for reasons of health, economic hardship and social responsibilities using natural methods of withdrawal (*azl*) and abstinence. In the *Quran* there is no direct reference in favour of or against family planning. Mehtab S Karim in his scholarly essay "Islamic Teachings on Reproduction Health" puts forward views of various schools of Islamic thought on this subject which dispel many misconceptions.

Interestingly, the book argues that there appears to be no pattern of reproduction behaviour which could be described as Islamic. Islam as

such seems to be neither a hindrance nor a stimulating factor in fertility decline, at the global level while socio-economic factors may have played an important role in early fertility reduction in Muslim countries. Effective family planning programmes seem to have become the more important factor in achieving end results. The essays are supported by maps, tables and figures. Though India is not a Muslim majority country, it has the second largest Muslim population in the world. It would have made the study more interesting if a country with a large Muslim minority was also included to present a more comprehensive picture. The book is a valuable addition to the study of demographic pattern of Muslim countries.

Commodore M R Khan (Retd)

State Terrorism and Political Identity in Indonesia : Fatally Belonging. *Ariel Heryanto (London and New York : Routledge 2006), 242p, price not indicated, ISBN 0-415-37152-X.*

Indonesia celebrated six decades of independence this year. These decades have been eventful and sometimes traumatic. The Dutch colonial power took four years to concede legal recognition to its independence. Later, the attempted coup in 1965 polarised the polity and unleashed an orgy of violence against communists and their sympathisers. The unfolding of events at that time is still a subject of controversy: who was responsible for the abortive coup and what was the role of the external powers-the United States and China. The result was removal of Dr. Sukarno as President and takeover of power by General Soharto, who ruled the country until another traumatic event - the economic crisis which engulfed Southeast Asia in 1997-8.

Ironically, General Soeharto used the same legal provisions to gain and entrech himself in power as were used by Dr Sukarno when he introduced "Guided Democracy" with himself as the arbiter. He introduced the anti-subversion law, which was used extensively by Soeharto's government to suppress its opponents.

Dr. Heryanto illustrates the process of suppression by narrating the case of a few students in the institutes of higher learning in Yogyakarta, who were arrested for selling the books of Promoedya A Toer, an internationally known writer whose works have been translated into several languages. Toer was arrested after the abortive coup in 1965 and was among those released as a result of insistence on human rights by President Carter of the United States. The sale of books took place after his release. In narrating the case, the writer introduces ideas which may have significance beyond Indonesia's borders.

He says whatever be the ideological persuasion, the students are seen as apolitical and morally motivated. Further, the relationship between the intellectuals and the security officials is based on mutual fear and anxiety. The security officials believe that subversive elements work for an underground movement in small units of a bigger organisation which is likely to have overseas links. The security organs create a sense of fear among the population, which is a form of 'state terrorism'.

He suggests 'state terrorism' "combines and mediates two distinct forces of power: coercion and consent; violence and reward/persuasion; or the material and the mental." He also comments on the approach of the security agents: "faced with contradictions or incoherencies in their intelligence work, they may try to resolve them rationally. But ultimately their main task is not to accomplish accurate analysis and a completely coherent narrative; it is to take resolute actions."

Thus, Dr Haryanto's book may be of interest to internal security specialists, apart from students of Indonesia's history.

S K Bhutani, IFS (Retd)

Dissent and Opposition in Communist Eastern Europe. Origins of Civil Society and Democratic Transition. *Detlef Pollack and Jan Wielgohs (eds), (Hants, UK : Ashgate, 2004), 275p, £ 55.00, ISBN 0-7546-3790-5.*

The subject of this book is the transition from what was called state socialism to what is now called democracy in East Europe and the former Soviet Union. The book is organised into individual country case studies, and instances of certain general propositions of crisis and transition. Dissidence is defined, as the repudiation of the regime itself, not as a mere critique of it. It forced the discourse of human rights and compelled the regime to defend itself as per universally accepted criteria. The editors identify three models of change in the 1980s. In the first model, a faction within the regime is able to break off, overcome opponents, and lead the reform, as in Russia, Bulgaria, and even Romania, despite the execution of the *Ceausescu* clan. In the second, a faction of the regime split, but is not able to control the reform, and the opposition from outside determines the process, as in Czechoslovakia and the German Democratic Republic. In the third model, the change is a negotiated settlement between the reformers within the regime and the opposition outside, as in Hungary and Poland, and even Estonia. But throughout, the opposition to the regimes did not induce the crises, with the exception of Solidarity in Poland in the

1980s. The other revolts and opposition are - Berlin 1953, Hungary 1956, Czechoslovakia 1968. These were instances of attempts to reform the regimes. Only the delegitimisation of the regime rather than reforms from within could lead to the dramatic results of the 1980s. This was achieved by dissidence, by the human rights campaigns based on universal principles, and by the foreign networks which did so much to sustain them.

Prof. Madhavan K Palat

Commercial Satellite Imagery and United Nations Peacekeeping, A View from Above. *Rob Heuhert (ed), (England : Ashgate, 2004), 251p, £ 55.00, ISBN 0-7546-1072-1.*

Commercial Satellite Imagery (CSI) is increasingly affecting the world in roles associated with United Nations (UN) peacekeeping and humanitarian operations, apart from telephony, television and radio broadcasts. Canada is a major producer and consumer of this imagery. It has strong connections with the UN peacekeeping operations.

The book comprises of papers from the conference held at the University of Calgary towards the end of the year 2000. The principal focus was to understand the impact that CSI has had on the international system. CSI is defined as unclassified satellite imagery publicly offered for a fee on a routine basis, whether by a public agency or a private firm.

Two experts examined cost effectiveness of and financial aspects of CSI. Another looked at the new trends. Experts also studied the development of geo-spatial technology for nuclear information management. Detection of new nuclear military assets or transportation of equipment is important. With the end of the Cold War, the UN experienced an upsurge in demand for peacekeeping operations. Initially, many involved liquidation of Cold War-related disputes, and were handled with relative success. Then came the Gulf War and, in retrospect, vastly and prematurely ambitious hopes for a UN role in maintaining international peace and security. A series of highly visible failures - in Somalia, the former Yugoslavia and Rwanda, in particular, followed and demonstrated complex demands being made on the UN in peacekeeping operations. All the same, CSI operations are being privatised rapidly as governments alone cannot cope with the growing demand.

A well-brought out compilation, of interest to officials of Ministry of External Affairs and Defence Forces.

Commodore R P Khanna, AVSM (Retd)

An Instinct For War. *Roger Spiller (Cambridge : Harvard University Press, 2005), 403p, price not indicated, ISBN 0-674-01941-5.*

Roger Spiller, "excavates the essence of war and its evolution...from the perspective of an ancient Chinese Emperor to Napoleon's command, from a Civil War... to the particularties of today's small wars throughout the globe."

The nature of war is woven through narratives such as a Florentine bureaucrat, imprisoned for conspiracy, in conversation with his guard, considering how, "a virtuous republic may take possession of wars purposes". Then there are memoirs of an imperialist recalling "modern imperialism invade the New World to ignite a war between cultures." There is also an account of "a Napoleonic Surgeon who journeys through battles, human landscape where courage and cowardice fight side by side". The last makes a very absorbing read.

Some chapters of this book are in the nature of a compilation of human aspects of war. The chapter titled 'The very last civil war historian', takes the form of letters from a Colonel wounded in the 'American Civil War'. These letters are to his wife and to his father; of good cheer in spite of the pending amputation of his foot and subsequent death. This and other stories of war are meant to, as the Prologue puts it, speak of war in a certain way; how we have thought about its nature, its many shapes and its conduct. "Human Rain", Chapter nine is the story of war between ancient empires in the Manchurian wastes. It unveils the face of industrial combat at the dawn of the Twentieth Century.

"Is modern war too terrible for human beings to fight? Will war annihilate itself with its own efficiency?"

An absorbing study of the human aspects of war from time immemorial to the present day. It is not, however, a study of professional aspects of warfare.

Lieutenant General A M Vohra, PVSM (Retd)

Russian Security and Air Power 1992-2002 : The Development of Russian Security Thinking under Yeltsin and Putin and its Consequences for the Air Force. *Marcel de Haas (London : Frank Cass, 2004), 237 p. Price not indicated, ISBN 0-714-65608-9.*

This is an excellent book giving professional insight into contemporary Russian Air Force. It becomes even more crucial when one considers that little was publically available on the erstwhile Soviet Air Arm during the Cold War years.

The book covers decision making from the highest political level down to the tactical level. The aim of the author is to assess the effect of political-strategic decision making on use of airpower in Chechnya and Dagestan which witnessed insurrection during the last decade. As in the West, in Russia too, strategic analysts have started subscribing to the idea of centrality of air power in conflicts, internal, external and conventional. The analysis reveals that contribution of Russian Air Force has increased qualitatively as well as quantitatively since 1992. But it is still way behind the western capability. The underlying causes being poor funding (10 per cent of the Defence budget for the Air Force *vs* 30 per cent in most Western Countries), poor training (average of 29 flying hours Vs 150 to 200 hours in the West), poor maintenance, low quantity of Precision Guided Munitions (PGMs) and rather limited flying ability in bad weather and at night.

The next major problem for the Russian Air Power has been its frequent fragmented command and control arrangement. It had centralised command and control for aviation during World War I. However, during the inter war years and till May 1942 the Command got fragmented under Ground Forces. This resulted in undermining of effectiveness of the Soviet Air Power contributing to defeat. In Spring 1942, the entire aviation was once again placed under the Air Force. This arrangement continued till 1980. The Soviet Air Power was parcelled out under Military Districts with negative consequences. Finally in 1988, the Command was once against centralised under the Air Force.

In 1988, Air Defence Forces were merged with the Air Force; air arms of other Services were amalgamated into Air Force and finally the Army Aviation, majority of which comprised the vast helicopter fleets, was merged into Russian Air Force in 2003. This change of great magnitude was also a result of change in the doctrinal outlook. The Soviet Air Power's main task, since the start of military aviation was to provide air support for ground operations. Post-World War II, the strategic bomber force had its nuclear role, yet the rest of the airpower remained oriented to the tactical role. This has changed in the last decade with the new doctrine more aligned to the Western airpower doctrines.

What the changes signify is that once again the Russians seem to be on the correct path doctrinally and organisationally to be able to exploit modern air power capabilities. How much down this line they will travel will depend upon future allocation of resources to the Air Power, flexibility and realism in training and actual utilisation of air power. In this context, the book is informative and timely.

Air Vice Marshal A K Tiwary, VSM

Birds of Kangra. *Jan Willem Den Besten (New Delhi : Mosiac and Mompeak Publishers, 2004), 173p, Rs. 395.00*

One of the finer points of the history of Indian ornithology is the pioneering role of the Indian Army Officers in the exploration and documentation of India's avifauna. The contributions of Major General Thomas Hardwicke, Major T C Jerdon, Lieutenant Colonel R S Tickelle, Colonel Sykes and Major Franklin have been immense. Jerdon's book *Birds of India* in three volumes published in 1862-64 was the summation of the collective knowledge of the "five" and also of other ornithologists.

This legacy of the "five" attracted many more from the succeeding generations of Army Officers. The birds of Kangra Valley were for the first time systematically explored and 255 species listed by Captain R W G Hingston of the Indian Medical Services (IMS) between 1918 and 1919.

Hingston had hoped that his list of the Kangra birds "may serve as a foundation on which others can build with further accuracy and precision". His wish was fulfilled when Hugh Whistler was posted as the Superintendent of Police, Dharamsala in 1920. Whistler was an accomplished ornithologist and in due course was to become Salim Ali's mentor. When Whistler published his list of birds of Kangra, his count stood at 403 species.

Beston carries forward Whistler's bird count for the Kangra Valley from 403 to an all time high of 555 species by 2003 ! It is not as though more species have since evolved or mutated but simply because the creation of *Pong* Dam has begun to add a large number of water-bird species as well to the Kangra List.

Besten's book has three unique attributes. Firstly, unlike the academic ornithologist, he delights in his surroundings with empathy and compassion at the personal level. Secondly, he has illustrated the text with over 500 photographs shot by him. The photograph of the *Dhauladhar* mountain-scape with Barheaded Geese in the foreground (pp.10-11), the portrait of the Greet Barbet (p.106), the flock of Long-tailed Minivets in flight (pp.112) and an interloper among birds, the Yellow-throated Marten (p.29) are his master-pieces. And lastly, Besten recounts local legend or folklore pertaining to each connected group of birds with sensitivity and reverence as for instance, the retelling of the "epic tale" of the Great Barbet (p.107).

Besten has above all crowned his love of birds by having His Holiness the *Dalai Lama* to write the first page of *Birds of Kangra*.

Indeed, the book captures the rich bird-life of the Kangra Valley in its essence.

Lieutenant General Baljit Singh, AVSM (Retd)

Treasures of Indian Wild Life. *A S Kothari and B F Chhapgar (New Delhi : Oxford University Press, 2005), 212p, Rs. 1900.00, ISBN 0195677285.*

The book describes not just the entire spectrum of India's fauna and flora but also provides fascinating glimpses into the early time of our rural settlement, their problems, prospects, social customs, superstitions, legends and folk lore. But to a perceptive reader, many passages would be like a poignant requiem on our wildlife. In a subsequent chapter, we learn that the lion was fully exterminated from North West India and Punjab by 1842. Then there is an article whose title alone sums up both the abundance and then the steady persecution of the tiger and much of other wildlife beginning 1837. Of the 76 full page colour illustrations, 62 are from John Gould's creations. The two-page spread of the tiger with his prey (a male Blue Bull) painted by William Kuhnert is mesmerising in the book.

The average reader may well wonder at the absence of works by Indian artists. By the time the Bombay Natural History Society (BNHS) was founded in 1883, works of Indian writers in this field had been siphoned through purchase or plunder to either the private collections of philanthropists or museums in Europe and the USA. The descriptive-text to the sole reproduction from the *Akbar Nama* says it all : "Emperor Akbar Hunting with Cheetahs. An illustrated copy of the *Akbar Nama* is in the collection of the Victoria and Albert Museum, London...It bears the signature of his son Jahangir and a seal of great grandson Aurangzeb. During the decline of the Mughal Empire the *Akbar Nama* fell into the hands of one Ahmed Ali Khan in 1793. It was purchased by Major General John Clark, the Commissioner of Oudh in 1896 and was acquired by the Victoria and Albert Museum from his widow...the manuscript contains 117 paintings illustrated by 56 (Indian) artists".

The rich collection of black and white reproductions fall in two categories: those dealing with wild-life are mostly from the works of Lieutenant Colonel R A Sterndale's *Denizens of the Jungle* 1886 and Major General Douglas Hamilton's *Records of Sport in Southern India 1892* all executed by the authors themselves. The pencil drawings by James Forbes from his *Oriental Memories 1812-14* are matchless. What brings torrents of nostalgia is "Fattypore Sicri", drawn by William Purser, sketched by Captain Robert Elliot, from *Views in India, China and the Shores of the Red Sea, Vol I, 1835.*

Treasures of Indian Wildlife will certainly be a prized possession for any book-lover and a wake-up call for all Indians to save and cherish these "treasures".

Lieutenant General Baljit Singh, AVSM (Retd)

The Anglo-Maratha Campaigns and the Contest for India : The Struggle for Control of the South Asian Military Economy. *Randolf G S Cooper, (New Delhi : Cambridge University Press, 2005), 437p, Rs. 695.00, ISBN 81-7596-250-X.*

The book covers the Anglo Maratha Campaign against British Rule in India in six chapters, which include Maratha military culture, British perceptions and the road to war in 1803, the Deccan Campaign of 1803, the Hindustan Campaign of 1803, 'Coming In' and 'The Anatomy of Victory'. It is a product of a thoroughly researched project undertaken at the Cambridge University and brings out very interesting and revealing conclusions regarding the misconceptions perpetuated by the British authors about the Marathas and the manner in which they fought their wars.

The author highlights that unlike popular belief, the Mughal Army was secular with the very best drawn from all castes of Hindus, Muslims, Sikhs and Christians. Similarly, he points out that the loss of the Maratha Army at the hands of Ahmed Shah Abdali in 1761 A.D. was as a result of having been "pinned down in its camp" and virtually "starved to the point of malnutrition and weakness" rather than for not having employed its famous guerrilla tactics. He further goes on to demolish the myth of the Maratha Armies being backward and "locked in time". He argues that "the Europeans failed to recognise that South Asian military culture was every bit as valid as their own; every bit as dedicated as their own".

Some other aspects which throw fresh light on Maratha military culture are that "Maratha armies sought and employed the competitive advantages offered by technology as well as doctrine" contradicting the myth that guerrilla warfare was the sole strategy adopted by the Marathas. He says, "Infantry warfare was not new, or an experiment, for the Marathas in 1803".

The book is a refreshing attempt at objective analysis of convenient stereotypes, which have been propagated to maintain the myths of European superiority as the basis for the victory of the British forces in India. It also analyses Indian folklore and supports prognosis with facts and logical deductions.

The book is highly recommended for libraries and individuals with an interest in history of the period as well as medieval military strategy.

Lieutenant Colonel Vivek Chadha

Public Sector Reform : Governance in South Africa. *Karen Miller. (Hampshire, England : Ashgate, 2004), 150p, £ 47.50, ISBN 0-7546-4315-8.*

The study of governance, public policy and reforms in the public sector has been a neglected subject in most of the developing countries. To overcome this discrepancy, Karen Miller undertook research in this field in South Africa. This book is based on doctoral research conducted by the author. To provide her readers a wide base, the author has given an overview of public sector reforms and role of the senior public servants in Great Britain, the US, France and the Netherlands. She also analysed the system in South Africa, and the impact of apartheid on public sector reforms and the role played by politicians and bureaucrats in it. In the last chapter, she has given readers an idea of the future of South African Public Service and offered some valid recommendations for further reforms in the system.

The book has a definite relevance for Indian Administrators.

Major General Yatindra Pratap (Retd)

Reflections of An Old Soldier. *Col R N Khanna (Retd), (New Delhi : Bookmart Publishers, 2005), 260p, Rs. 300.00, ISBN 81-87583150.*

The author has written a biographical account of various events, episodes, and values inherited by him from his parents, which moulded his life. Born and brought up in undivided west Punjab, he has recounted the transition from a harmonious life with people of different religions and communities living with dignity to the turmoil created by partition when different communities came to fear each other and had to flee across geographical boundaries dividing India and Pakistan. It was during this period that he got commissioned into the Army Ordnance Corps. He has been a keen observer of transition in the past few decades with India improving technologically, influence of western values on our youth, and dilution of old values imbibed from our forefathers.

The language of the book is laced with patriotic and moralistic fervour. Suitable excerpts from the *Gita*, poems and statements of renowned personalities have been included to exhort the youth to strive for selfless contribution to national growth, and to restore India's pristine cultural and philosophical glory.

The book also contains gists of battles fought by the Indian Army ever since India gained independence in 1947 down to the Kargil operations in 1999. This is a valuable input for a quick reference to these events at one place.

Overall, the book has been written with a forceful urge to rekindle the Indian ethos, with its inherent values. The book is educative and informative. It would be a valuable addition to all unit libraries in the Army as also to libraries of schools and colleges.

Major General Dinesh Chandra (Retd)

Japan's China Policy: A Relational Power Analysis. *Linus Hagstrom, (London : Routledge, 2005), 230p, £ 60.00, ISBN 0-415-34679-7.*

The book derives an understanding of Japan's power in international affairs through the application of the relational concept of power. The broad interface that has been maintained between Japan and China for more than two millennia is the focus of the book. Two selected issues – investment politics and dispute over the Pinnacle Islands are the dominating themes.

The book refers to statecraft as a means for the pursuit of foreign policy goals. Further, it points to the fact that both China and Japan tried to influence each other as well as World opinion by means of ideational statecraft. The author outlines that Japan's economic miracle of the 1960s and its impact has influenced its role in the international sphere. Despite Japan's higher expenditure on defence the *realists* do not accept the conclusion that Japan has a higher military power. The *neo-realists* would not grant Japan the status of a great power. It is observed that Japan's foreign policy is often complemented with ideas of structural power.

Japan's exercise of power in terms of reciprocal protection of investments is another fresh insight of the author. Liberalisation of Chinese market in particular and adoption of new laws has correlated positively with increased inflows of Japanese Foreign Direct Investment (FDI) into China. Problems concerning Japanese FDI in China were conspicuous on the bilateral agenda in the early and mid 1980s. Other contentious issues included the interpretation of history-most significantly Chinese outcries over the revival of militarism and Japan's relationship with Taiwan.

The policy instruments used by Japan with regard to issues of a "specific China policy" is highlighted. Japanese claim for Pinnacle Islands is based on the "principle of discovery occupation" in International Law. The author considers China's title to the Island as nebulous. Japan's cautious attitude towards China and its decision not to take more proactive action with regard to the Islands was also an instance of diplomatic statecraft. Japan adhered to ideational statecraft and the strategic use of non-action and it made no negative and offensive influencing attempts, but relied on positive and defensive ones. The book recommends that the relational concept of power makes an important contribution to foreign policy analysis. With the help of relational power analysis, Japanese foreign policy can now be portrayed more coherently in terms of power, making it less enigmatic and more intelligible.

To sum up, this book is in agreement with Green Hook and his colleagues that the image of Japan as enigmatic, inexplicable or abnormal is a myth, and it has found that this myth is conditioned on likewise enigmatic analytical approaches.

Shri Jeevan Prakash Mohanty and Shri Kamal Sharma

War and Nationalism in China 1925-1945. *Hans J. van de Ven (London : Routledge, 2003), 377p, Price not indicated, ISBN 0-435-14571-6.*

The book is an indepth study of internal conflicts in China in the first half of the twentieth century. These conflicts aimed to generate a feeling of nationalism and create a central rule in China after the fall of the *Qing* dynasty in 1912. The role of the legendary leader of China, Sun Yat Sen in the revolution of 1911, leading to the fall of the *Qing*, and his efforts to unite the nation till his death in March 1925 have been described in great detail. Sun Yat Sen died before he could achieve this feat and the mantle fell on Chiang Kai-shek, the military leader who had raised the First Army Corps, the military adjunct to the *Kuomintang* (KMT) party formed by Sun Yat Sen soon after the revolution of 1911. The Communist Party of China (CPC) was also formed around the same time under direct supervision of Russia, with active consent of Sun Yat Sen. The KMT and CPC formed a United Front in their quest for unification of China. Mao Ze Dong was, in fact, member of both the parties and Zhou En Lai was the political adviser to the First Army Corps which was commanded by Chiang Kai-shek.

The author has quoted profusely from the records and minutes of political meetings of the period to narrate the events leading to the formation of the central rule. After the fall of *Qing*, several warlords took over various regions, especially in the north, created their personal armies which controlled the peasantry and collected taxes from them. These war-lords refused to come under central rule. It fell to Chiang Kai-shek to invade them with his First Army Corps in 1926, after the death of Sun Yat Sen. He not only managed to overpower them but was also successful in making them surrender their armies which were amalgamated to form the centralised army called the National Revolutionary Army (NRA), under the Military Affairs Council of the KMT. The NRA was also commanded by Chiang Kai-shek.

The author highlights the inherent weakness of the KMT as a political party. Its motto was to first "sieze military power, followed by a provisional constitution to readjust relations between military and civil governments and, finally, transition to a constitutional republic." Unfortunately, Chiang Kai-shek was not able to achieve the goal since he got involved in the war of resistance with the Japanese who had occupied Manchuria in 1930 and in 1940 they attacked southern China through Burma. This kept the Chinese Army occupied, along with some US forces under General Stilwell who was deputed by the Americans to be Chief of Staff to Chiang Kai-shek of the Allied Armies in the China Theatre. Stilwell led Chinese forces during the 1942 defeat of the Allies in Burma.

Mao Ze Dong, in the meanwhile, had split from KMT and had started forming the Red Army which eventually removed the KMT and NRA, along with Chiang Kai-shek who fled to Taiwan in 1949. These events have not been covered in the book as it restricts itself to the period till 1945. The book, however, covers General Stilwell's role in the Second World War along with the Chinese and British as allies in Burma campaign during 1940s. The author has tried to defend Chiang Kai-shek decision to not allow Chinese forces being placed under command of Stilwell even in Chinese territory, as was being sought by the USA. He has highlighted weaknesses in Stilwell's planning of operations in Burma. Apparently, Stilwell was quite contemptuous of both the British and Chinese military leadership. Nonetheless, this narrative gives an interesting insight into the clash of personalities at the highest level during the war. The book makes interesting reading of China's past historical setting.

Major General Dinesh Chandra (Retd)

Russian Military Reform 1992-2002. *Anne C. Aldis and Roger N. McDermott (eds) (London : Frank Cass, 2005), 332p, £ 70.00, ISBN 0-7146-5475-2.*

The book provides a deep insight into the Russian military reforms between the period 1992 and 2002. It highlights firstly, that no worthwhile reforms came about and secondly, that the armed forces have been progressively loosing their societal image. In addition, the army's performance showed low level of combat readiness, dismal performance in Chechnya because of poor funding and supply, criminality and corruption, '*Dedovshchina*' (bullying), broken system of conscription and inherent mismatch of civil - military relations. This has lead to 'military building' rather than 'military reform'.

Russia could not settle its position in the commity of nations. It failed to put together the Commonwealth of Independent States (CIS). This forced Russian Federation (RF) to form its own Armed Forces and a Ministry of Defence in 1992.

In the period 1992 to 2002, the RF sucessively conceived three National Security Concepts (NSC), two Foreign Policy Concepts (FPC) and four Military Documents (MD). In 1992 President Boris Yeltsin passed a decree that RF will have its own Ministry of Defence and Armed Forces.

The book brings out the history of the Military divided on the security policy and their hierarchy. The President did not promulgate the first National Security Concepts (NSC) till December 1997, as the security elite debated heavily on the foreign and security politics, embroiled in a power struggle while there was instability both at home (Chechen insurgency etc.) and externally in neighbouring CIS states of Moldovia, Georgia and Tajikistan,

not to mention the situation in the Balkans. Tackling these contingencies delayed codifying security policy into an NSC. Inconsistency was also the result of differences between military and civil experts in drafting the NSC because external threats and internal threats vied for their internal threats vied for their own place of importance.

11 September 2001 incident changed RF's status in CIS. The Military Doctrine (MD), in the meanwhile changed its stress from global and nuclear wars to domestic and regional armed conflicts, mainly because of paucity of funds.

A very informative book with well researched material. The situation as it prevails in the Russian Armed Forces has been well analysed. It also offers suggestion as to how the problems can be addressed.

Vice Admiral I J S Khurana, PVSM (Retd)

Pakistan : Democracy, Development and Security Issues. *Veena Kukreja and M P Singh (eds) (New Delhi : Sage Publications, 2005), 301p, Rs. 360.00, ISBN 0-7619-3417-0*

This book is an attempt to provide Indian, Pakistani and American scholarly perspectives on democracy, development and security issues in Pakistan. Arguing that the three themes are closely interlinked, the editors argue that the political and economic experience of the past 58 years shows that neither democracy nor capitalist development can survive without the other.

Using a variety of Pakistani, Indian and Western sources, the contributors examine the internal and external problems of Pakistan.

The book discusses several important issues, including obstacles to democracy in Pakistan, fundamental Islamic ideology, the politics of language, ethnic problems, terrorism which came to the fore following the Soviet invasion of Afghanistan and Pakistan's active support of the Afghan resistance.

The book focuses on the prospects of South Asian cooperation in a post 11 September 2001 world, the future of Indo-Pak relations, including long-term security threat that Pakistan poses to India, the ongoing peace process between India and Pakistan, and implications of cross-border terrorism for peace initiative.

It will be of great interest to all those who are interested in the study of domestic politics in Pakistan, Indo-Pak relations, comparative politics, political sociology and economics.

Shri I R Kumar

How to Plan Your Success, Step-by-Step. *I R Kumar (New Delhi : Icon Publications Pvt. Ltd., 2006), 205p, Rs. 205.00, ISBN 81-88086-29-0.*

Listed in the *Limca Book of Records, 2004*, the author has notched up another notable success with the publication of this self-help book. He derives his arguments from the ancient Hindu heritage of the country based on *Vedantas.*

Success is a rather many splendoured term, having different connotation according to ones value systems. It is normally related to wealth and materialistic achievements. The author, however, rightly states that 'Spiritual' success should be the real goal of life, which if pursued through the path of pleasure and peace will lead to the achievement of the ultimate goal of Super Success holistically. It can be obtained by formulating a 'management strategy' to enable one to go in for an 'action plan'. Mr. Kumar suggests seven steps along with the seven canons of self-empowerment. Management *Mantras* and the Check Lists appended at the end of each chapter make this book worth reading.

Lieutenant Colonel A K Sharma (Retd)

Liberalism and War : The Victors and the Vanquished. *Andrew Williams, (London : Routledge, 2006), 263p, Price not indicated, ISBN 0-415-35980-5.*

The book provides a detailed study on liberal thinking over the last century about how wars should be ended. The author has examined the main strategies used at the end and in the aftermath of wars by liberal states to consolidate their gains and to prevent the reoccurrence of wars with those states they have fought. Incidentally, the US Army has been used on more than thirty different occasions in the post-cold war period compared with just ten during the cold war period. This establishes the fact that military power is now the main vehicle for regime change with Iraq being the most recent case.

The author has also explored how various strategies-revenge, restitution, reparation, restraint, retribution, reconciliation and reconstruction have been used by liberal states not only to defeat their enemies but also transform them. The post-Second World War transformation of Japan and Germany into liberal democracies is a clear indication of such a strategy. However, the recent pre-emptive strikes against Iraq in 2003 by the US led coalition forces has questioned the liberal intentions of the US. Hegemonistic motives and illiberal actions of the US have taken centre-stage.

The book is clearly about the linkages between the aftermath of war and making of peace. The first two chapters are dedicated to analyse

some of the key liberal thinkers and the thinking about how wars should be or how these should be ended. These two chapters primarily focus on the nineteenth and twentieth century as backdrop to establish the framework to examine policy options for ending wars. Chapter three examines how the liberal states should not deal with the defeated adversary through the imposition of a 'reparation' regime, which was clearly illustrated by the failure of the "Treaty of Versailles" after the First World War. Chapters Four and Five discuses reconstruction. 'Reconstruction' is still the preferred option for dealing with the aftermath of major conflicts as witnessed in Iraq. Chapter Six examines the legalistic solutions in the aftermath of wars, especially those on retribution, primarily through 'War Crime Tribunals' and 'reconciliation'.

Chapter Seven describes some links with the most current approach of 'conflict resolution', which alone can bring about the lasting solution to the problems created by war, evidenced by what is now unfolding in Northern Ireland.

The book reflects the Anglo-American point of view rather than a global perception. Some of the Critical theorists and Marxists thinkers would call it 'Capitalist' aspirations of the transnational capitalist class, rather than liberal states in the true sense. Notwithstanding the debate on the merits of the beliefs and practice of the so called liberal leaders, the media, the civil society, and international politics are shaped by the dominant liberal states of the day. In 1900 it was UK and now it is the US.

This book will be of great interest to students and researchers of Security Studies, international relations and liberalism.

Lieutenant General Chandra Shekhar, PVSM, AVSM (Retd)

The Political Economy of a Common Currency: The CFA Franc Zone Sine 1945. *By David Stasavage (Aldershot : Ashgate, 2003), 195p, price not indicated, ISBN 0-7546-3469-8*

This book has been published under the International Political Economy of new regionalism series whose objective is to create informed interdisciplinary and international research. This series is developed by an international international editorial team of scholars.

The book dwells upon theory and history of the Franc Zone since 1945 and traces its evolution. It indicates traditional explanation and transnational politics. It explores alternative political economy. The issue of susceptibility has been addressed including decolonisation, entry of France into the European Community and the growing marginalisation of Africa in world affairs.

The book provides essential introduction to the political economy of French African monetary relations over the period under study. This includes management of its currency, national interest, lobbying by societal groups and how this lobby has provided the main political support for the Franc Zone. The argument has been in the end, applied to the question of the macro economic management and in particular to debates over exchange rate policy.

The book is a very welcome edition to the literature available on the subject.

Dr Raj Kumar

Making Foreign Policy Presidential Management of the Decision-Making Process. *David Mitchell, (Aldershot : Ashgate, 2005), 271p, Price not indicated, ISBN 0-7546-4463-4.*

The book is a part of the academic debate in the United States on the process of decision-making in the realm of foreign policy. It assumes correctly that the President plays a "critical role" in formulation and execution of policy. The author examines the foreign policy process during the Vietnam War under President Nixon, policy of arms control by President Carter and President Reagan, the Balkan policy under President Clinton and Iraq policy by President George W Bush. He suggests that functioning of the advisory system in the shape of National Security Council (NSC) and the degree of interest shown by the President determine the outcome. Whereas President Reagan showed little interest or preference in a particular arms control regime and therefore no decisions were reached in the Council due to bureaucratic wrangling, President Nixon had definite views on dealing with Vietnam and used the NSC as he thought fit and took all decisions by himself.

The author suggests that choice of advisory system, role of advisors and their ideological proximity to the President and degree of centralisation exercised by him are crucial factors in formulation of policy.

It would be instructive to study the decision-making in the case of hostage crisis in Iran faced by President Carter and the Iran-Contra affair during the Reagan Presidency, where Presidential pre-occupation or preference determined the decisions, howsoever risky they proved to be. The advisory bodies were unable to change the President's preference. In addition, the advisory bodies do not limit President's ability to consult others outside the formal structures. Thus, formal structures are as useful as the President wishes it to be.

It is an interesting study and should encourage similar effort by Indian scholars.

Shri S K Bhutani, IFS (Retd)

Additions to the USI Library for the Quarter - Ending March 2006

(The books reviewed in October-December 2005 issue have been added to the Library during this quarter but not shown in this list)

ASIA -STRATEGY AND MILITARY PERSPECTIVE

Asian Strategic and Military Perspective. *by R S N Singh. New Delhi, Observer Research Foundation, 2005, 423p., Rs. 1500.00 ISBN 81-7062-245-X.*

BIOGRAPHY

Subhas Chandra Bose: The Man and His Times. *by E A Vas. New Delhi, Lancer Publishers and Distributors, 2005, 269p., Rs. 695.00 ISBN 81-7062-243-3.*

CHINA

China's Techno-Warriors: National Security and Strategic Competition from the Nuclear to the Information Age. *by Evan A Feigenbaum. California, Stanford University Press, 2003, 339p., $ 34.65 ISBN 0-8047-4601-X.*

COMMUNAL ISSUES - INDIA

Religious Politics and Communal Violence. *Edited by Steven I Wilkinson. New Delhi, Oxford University Press, 2005, 446p., Rs. 695.00 ISBN 0-19-567237-2.*

ENCYCLOPAEDIA - INDIAN ARMY

Encyclopaedia of Indian Army. *by VP Malhotra. New Delhi, Anmol Publications Pvt. Ltd., 2006, nine volumes (set), 240p., Rs. 15000 ISBN 81-261-2581-0 (set)*

EUROPE

The Future of Europe: Integration and Enlargement. *Edited by Fraser Camerson. London, Routledge, 2004, 170p., Price not indicated ISBN 0-714-32483-1.*

FOREIGN POLICY - INDIA

Engaging with the World: Critical Reflections on India's Foreign Policy. *Edited by Rajen Harshe and KM Seethi. New Delhi, Orient Longman Pvt. Ltd., 2005, 492p., Rs. 750.00 ISBN 81-250-2825-0.*

HISTORY

The Kashmir of Sheikh Abdullah. by C Bilqees Taseer. Srinagar, Gulshan Books, 2005, 350p., Rs. 895.00, ISBN 81-8339-034-X.

History of Nepal v.1. *by Perceval Landon. New Delhi, Adarsh, 2001, 358p., Rs. 495.00 ISBN 87-138-30-0.*

History of Nepal v.2. *by Perceval Landon. New Delhi, Adarsh, 2001, 363p., Rs. 495.00 ISBN 87-138-30-0.*

HUMAN DEVELOPMENT REPORT - 2005

Human Development Report 2005: International Cooperation at a Crossroads, Aid, Trade and Security in an Unequal World. *New Delhi, Oxford University Press, 2005, 372p., Rs. 575.00 ISBN 0-19-567845-1.*

INDIA - JAMMU AND KASHMIR

Jammu and Kashmir: Charting a Future. *Edited by Dipankar Banerjee and D Suba Chandran, New Delhi, Samskriti, 2005, 79p., Rs. 200.00 ISBN 81-87374-44-6.*

INDIA - NEW GLOBAL POWER

India as a New Global Power: An Action Agenda for the United States. *by Ashley J Tellis. New Delhi, India Research Press, 2005, 120p., Rs. 350.00, ISBN 81-8386-000-1.*

INDIA - POLITICS AND GOVERNMENT - 1947

The Politis of Autonomy: Indian Experience. *by Ranabir Samaddar. New Delhi, Sage Publications, 2005, 312p., Rs. 360.00, ISBN 0-7619-3453-7.*

INDIAN ARMY

Leadership : Field Marshal Sam Manekshaw. *by Major General Shubhi Sood. Noida, SDS Publishers, 2005. 290p., $ 34 ISBN 81-902828-4-0.*

IRAQ WAR - 2003

Weapons of Mass Persuasion: Marketing the War Against Iraq. *by Paul Rutherford. Toronto, University of Toronto Press, 2004, 226p., $ 19.95, ISBN 0-8020-8651-9.*

ISLAM

Islam, America and South Asia. by M Saleem Kidwai. New Delhi, Gyan Publishing House, 2005, 320p., Rs. 640.00, ISBN 81-212-0870-X.

JAMMU AND KASHMIR - VIOLATIONS

Kashmir in Comparative Perspective: Democracy and Violent Separatism in India. *by Sten Widmalm. Karachi, Oxford University Press, 2006, 226p., Rs. 350.00, ISBN 0-19-547005-2.*

JAPAN

Defending Japan's Pacific War: the Kyoto School Philosophers and Post-White Power. *by David Williams. London, Routledge, 2005. 238p., Price NA ISBN 0-415-32314-2.*

LIBERALISM AND WAR

Liberalism and War: the Victors and the Vanquished. *by Andrew Williams. London, Routledge, 2006, 263p., Price NA, ISBN 0-415-35980-5.*

MEMOIRS - WAR HEROES

Love Stories of War Heroes. *by Gopal Purdhani. New Delhi, A Sterling Paperback, 2006, 155p., Rs. 100, ISBN 81-207-3051-8.*

MILITARY AFFAIRS

Masters of War: Classical Strategic Thought. by Michael I Handel. London, Frank Cass, 2002, 482p., Price not indicated, ISBN 0-7146-5091-9.

The Remnants of War. *by John Mueller. Ithaca, Cornell University Press, 2004, 258p., $ 18.87, ISBN 0-8014-4239-7.*

Guide to Effective Military Writing. *by William A McIntosh. New Delhi, Knowledge World, 2006, 3rd Edition, 229p., Rs. 295.00, ISBN 81-87966-44-0.*

NEWTON'S UNIVERSE

A Briefer History of Time: the Science Classic Made More Accessible. *by Stephen Hawking. London, Bantam Press, 2005, 162p., £ 15, ISBN 0593-054970.*

NUCLEAR NONPROLIFERATION

The Nuclear Tipping Point: Why States Reconsider their Nuclear Choice. *Edited by Kurt M Campbell, Robert J Einhorn and Mitchell B Reiss. Washington DC, Brooking, Institution Press, 2004, 367p., £ 16.50* ISBN NA

NUCLEAR STRATEGY - SOUTHEAST ASIA

Universal Compliance: A Strategy for Nuclear Security. *by George Perkovich. New Delhi, India Research Press, 2005, 220p., Rs. 395.00 ISBN 81-87943-40-8.*

ROYAL ARMY - NEPAL

The Royal Nepal Army: Meeting the Maoist Challenge. *by Major General Ashok K Mehta. New Delhi, Rupa and Co., 2005, 110p., Rs. 295.00, ISBN 81-291-0817-8.*

TERRORISM

Terrorism: Critical Concepts in Political Science. *Edited by David C Rapoport. London, Routledge, 2006, Vol. 2, 362p., Price NA ISBN 0-415-31652-9.*

War on Terrorism. *Edited by Alan O'day. Aldershot, Ashgate, 2004, 421p., £ 100 ISBN 0-7546-2424-2.*

Terrorism: Critical Concepts in Political Science: the First or Anarchist Wave. *Edited by David C Rapoport. London, Routledge (Taylor and Francis Group), 2006, Vol. 1 Price NA, ISBN 0-415-31651-0.*

Terrorism: Critical Concepts in Political Science: the Third or Left Wave. *Edited by David C Rapoport. London, Routledge (Taylor and Francis Group), 2006, Vol. 3, ISBN 0-415-31651-0.*

Terrorism: Critical Concepts in Political Science: the Fourth or Religious Wave. *Edited by David C Rapoport. London, Routledge (Taylor and Francis Group), 2006, Vol. 4, ISBN 0-415-31651-0.*

UNITED STATES - ARMED FORCES - HISTORY

Today's Best Military Writing: the Finest Articles Past Present and Future of the US Military. *by Walter J Boyne. New York, Tom Doherty Associates Book, 2004, 397p., $ 15.95, ISBN 0-765-30887-8.*

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Addicted to Oil America's Relentless Drive for Energy Security. *by Ian Rutledge. London, I B Tauris, 2005, 269p., £ 19.95 ISBN 1-85043-674-6.*

WORLD DEVELOPMENT REPORT - 2006

Equity and Development: World Development Report 2006. *Washington DC, The International Bank for Reconstruction and Development/ The World Bank, 2005, 320p., Rs. 495.00, ISBN 0-8213-6249-6.*

YEARBOOK 2006

Indian Defence Yearbook 2006. *Edited by Lieutenant General R K Jasbir Singh, PVSM Natraj, Dehradun, 2006, 604p. Rs. 1150 ISBN 81-86857-10-9.*

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