

## **Between dominance and Confidence-Building Measures: A Study of India's Nuclear Doctrine and the Current Regional Environment in South Asia**

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India's response to global nuclear non-proliferation measures has been a dominant theme in the country's overall evolution of nuclear policy since the country gained independence from the British colonial rule in 1947. In 1974, India conducted a nuclear test that it termed a 'peaceful nuclear explosion' and in 1998, India conducted a full scale nuclear test and subsequently claimed to attain nuclear capability which was followed soon after by its neighbor, Pakistan, also opting for the same nuclear route.

The purpose of this article is to analyze, scrutinize and critically evaluate certain key elements of India's draft nuclear doctrine including the changes and transformations that has taken place within the last few years. The paper also looks at and examines some workable and plausible confidence-building measures that could be experimented in the context of India-Pakistan relations.

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## **Background**

The draft on nuclear doctrine was presented in August 1999 to the Indian Prime Minister and the Cabinet and was released later for public debate by the National Security Advisory Board.

The nuclear doctrine of India was perhaps the first of its kind among the known nuclear weapon states of the world, and India prepared the draft nuclear doctrine document before obtaining capability mentioned in it. Since August 1999, when the doctrine was pronounced by India's national security advisor, the document had not been put before any parliamentary committees or been given a formal title. It was not clear whether the doctrine as presented was a set of recommendations or just simply a set of formulations based on reasoned judgement made by a select group of India's leading academics, bureaucrats, diplomats mostly based in the New Delhi's power corridor.

Certain key assumptions, accepted by consecutive governments in New Delhi, guide the nuclear doctrine paper that was submitted by the National Security Advisory Board(NSAB) to the Cabinet Committee for Security Affairs(CSA). First, there is a belief that nuclear weapons remain key instruments for national and collective security. Nuclear weapons do have utility. The selective possession of those weapons has been legitimized and perpetuated by the indefinite extension of the Nuclear Non-Proliferation Treaty(NPT). Second, the de jure nuclear weapon states have essentially abandoned their commitment toward disarmament. Third, autonomy of decision making on development and defense issues is the right of democratic India. (1)

The precise timing of the release of the DND (Draft Nuclear Doctrine) has raised eyebrows due to the fact that, in August 1999, the Vajpayee government was in a caretaker capacity having lost its majority in the lower house of Indian parliament. A new election had already been called for October 1999. Some might argue that the draft doctrine was released to the media to bolster Bharatiya Janata Party's electoral advantage. It might also be suggested that the nuclear doctrine was formulated only to formalize BJP's nuclear policy declared after the nuclear tests conducted in May 1998. According to Mr. Jaswant Singh, an important BJP member and a Cabinet Minister(1999-2004), "Nehru's policies provided continuity within India's strategic culture. However, Nehru's legacies consisted of little more than negative attributes like veneration of the received wisdom; an absence of iconoclastic questioning; a still continuing lack of institutional framework for policy formulation; lack of a sense of history and geography; an absence of a sufficient commitment to territorial impregnability and tendency to remain static in yesterday's doctrines."(2)

Yet, another view might be that it was to legitimize India's nuclear weapons through the formulation of Draft Nuclear Doctrine arising out of "the reciprocal fear of surprise attack" on the part of political leaders, military planners and strategic analysts in India. (3) Perhaps a succinct view was put forth this way. "The bomb has many fathers. The Congress conceived it, the United Front nurtured it, The BJP delivered. Let us not give the obstetrician any more credit than is due."(4)

### **India's Nuclear Doctrine within the Realm of Discourse on Deterrence**

When the draft document was released, it included statements within the purview of deterrence by stating that India would not conduct more nuclear tests, join the Comprehensive Test Ban Treaty with some modifications, enter negotiations to stop fissile materials production without conditions. It was also proclaimed by India's official spokesperson of pursuing a 'no-first use' policy vis-à-vis non-nuclear weapon states and, finally, establish a 'credible, minimum nuclear deterrent.' (This core policy was also reinforced by the new Congress -led government when Prime Minister Dr.Manmohan Singh in a speech to the nation on June 24, 2004 voiced support for it). However, an Indian government official said in 2001 that a no-first strike policy did not mean India would not have a first strike capability and added that how this option would be exercised was a political decision within the 'no first strike' policy.(5)

One of India's leading defense analyst, C. Raja Mohan, was quite forthright in articulating India's rationale for going for series of the nuclear tests in the summer of 1998. According to him,

"India has taken too long to come to terms with the nuclear revolution and its impact on world affairs. But the technology underlying the atomic revolution is 50 years old, and a continuing obsession with it will prevent India from making crucial investments and policy decisions on the new revolution in military affairs. The dramatic advances in information and communication technologies and their application to warfare will increasingly determine the locus of military power in the coming century. Worship of the old nuclear gods and the reluctance to pay attention to the impact of (information

technology) on the conduct of future wars will put India back in the position of global irrelevance with or without nuclear weapons... Nuclear weapons are certainly important. And India's decision to acquire them was long overdue. But in the flush of becoming an atomic power, India could easily overstate the significance of nuclear weapons. They can only serve a limited purpose for India-of preventing the use or threat of use of nuclear weapons by its adversaries against it. There is little else that nuclear weapons can do ... Even the most sophisticated and expansive nuclear arsenal will not propel India into the ranks of great powers. Mindless obsession with nuclear weapon will instead push India down the ruinous path that the Soviet Union went. Having acquired an insurance policy through nuclear weapons, India must now pursue the arduous domestic agenda of economic modernisation, political reform, and social advancement ... The productive economic and political engagement of the world must remain the bedrock of nuclear India's diplomacy. A paranoid reading of external threats to security and an over-determination of the role of nuclear weapons in national strategy will drive India into a needless confrontation with most nations and undermine New Delhi's efforts to expand its regional influence and global standing."(6). It echoes Prime Minister Vajpayee's statement made in the Indian Parliament that "India does not intend to use these weapons for aggression or for making threats against any country, these are weapons of self-defense, to ensure that India is not subjected to nuclear threats or coercion."(7)

The defense establishment of India also supported this notion of the absoluteness of nuclear weapons when Dr. Raja Ramanna, one of the early pioneers of India's Atomic Energy Commission concurred with Bernard Brodie's work published in 1946 a year after

the atomic explosion in Hiroshima and Nagasaki as well as with Glenn Snyder's 1961 seminal piece on deterrence.(8)

According to Dr.Raja Ramanna,

"Since the end of the Second World war, the problem of security has become aggravated because of two reasons: military power has become synonymous with technological and industrial power, and new developments in technology have brought the situation to a state where weapons of destruction have not merely been improving in potency in some linear manner, but a fundamental change in overall capability has taken place. Besides being assisted by automaton, never dreamt of before, some of them have reached the status of what is known as "ultimate" weapons, i.e.; their individual destructive power is more than what the world can bear. The "ultimate" weapon has the power of destroying vast areas of the earth and making them uninhabitable in a matter of a few seconds. In spite of this, the "ultimate" nature of modern weapons does not by itself seem sufficient for countries to give up further development of more efficient weapons. Greater effort is being put on defense research and the testing of weapons continues as before. In some countries the burden of deterrence has messed up not only their entire economic structures, but even their very integrity as nations."(9) Using similar language, George Perkovich writes of a strategic enclave, and in a detailed and comprehensive study examines the history not just of Bhabha's influence on India's political leaders, but of the efforts of Bhabha's successors, such as Vikram Sarabhai, Homi Sethna, Raja Ramanna, V.Arunachalam, and others.(10)

Unlike China, which has made clear its policy of 'negative security assurances' in respect to non-nuclear countries and adherence to 'no first use' except using the nuclear weapons within its territory against an adversary, India has yet to formulate a coherent policy in this regard.(11)

### **No First Use versus First Use: Strategic Dilemma**

While officially India has adhered to a 'no first use' policy in its nuclear doctrine, President A.P.J Kalam has pronounced that despite the 'no first use' policy, India will use nuclear weapons when peace is threatened and some other country uses against it(India).(12)

It is a matter of debate as to how to define when exactly and under what conditions, peace is threatened or purported to have been threatened.

According to Kanti Bajpai, a South Asian security analyst, the Indian government and most of the Indian strategic community tend to support the idea of NFU. At least four considerations seem to be behind Indian thinking on the subject. (13)

First of all, there is possible diplomatic advantage for India in an NFU commitment. The NFU offer to Pakistan and the other nuclear powers is a sign of moderation and responsibility in nuclear matters. It is consistent with India's pre-1998 policy and therefore shows continuity in Indian policy—another sign that India is a conservative and incrementalist power and not a revolutionary and unpredictable one. Pakistan's

opposition to NFU was always anticipated, and the contrast to India's position is expected to enhance India's image as a restrained power and to reinforce Pakistan's image as a troubling one.

Secondly, a moderate, restrained nuclear weapons programme, without tactical weapons and complicated command and control (both of which are implied by first use doctrines), is an economically rational choice. A minimum deterrent will be an affordable deterrent from India's point of view.

Thirdly, NFU has military-strategic utilities. The military advantage of an NFU with Pakistan is rarely articulated publicly, but one can see readily enough that if Pakistan also could be persuaded to agree to NFU, then India's conventional superiority could be used against Pakistan, particularly in a situation of asymmetric warfare such as in Jammu and Kashmir. On the other hand, New Delhi hopes that an Indian commitment to NFU will serve to reassure Pakistan and its public that it does not wish to threaten the existence of its neighbour—that war will not be a war of conquest and domination. Reassuring Pakistan is in India's interest since an edgy, trigger-happy nuclear Pakistan would be a recipe for further instability in the region.

Fourth, and this is more speculative, as Kanti Bajpai argues, an NFU commitment gives India time to sort out a number of technological, doctrinal, institutional, and even political issues. Technologically, it gives India time to figure out if it can produce tactical nuclear weapons which would be vital to any first use posture, particularly in relation to a



superior conventional power such as China. Doctrinally, the NFU allows India to debate what the real threats and challenges are and therefore what its nuclear use postures should be. Institutionally, the NFU may enough buy time for rival inter-service claims on nuclear weapons to be dealt with. Politically, no first use is helpful in solidifying domestic support for nuclear weapons and increasing civilian control over nuclear weapons. A no first use policy helps bridge the divide between those who are not enthusiastic advocates of nuclear weapons and those who are more supportive of going nuclear. The former are more likely to support nuclear weapons if India's posture remains a more defensive, no first use one. In addition, a no first use policy may be useful to civilians in retaining as much control over nuclear weapons as possible. If no first use translates into a de-mated posture in which Indian scientists control the nuclear warheads or cores, then such a posture will preserve the very highest degrees of civilian control over it. Thus, NFU may give India more time to establish command and control.

### **Pakistan's Thinking on No First Use/First Use**

Pakistan have thus far shown little interest in the idea of NFU. Perhaps the closest Pakistan has officially come to accepting the language of no first use was in the summer of 2002 when India and Pakistan confronted each other in the wake of the Kaluchak massacre in Jammu and Kashmir. In response to Indian threats to retaliate conventionally to the massacre, Pakistan stated that it would respond forcefully in turn, hinting that it was prepared to use nuclear weapons. Shortly thereafter Islamabad publicly clarified, apparently under US pressure, that responding to an Indian attack did not mean nuclear use, presumably first use, against India.

Among non-officials, those who oppose weaponization as well as those who support a minimum deterrent would probably support NFU, the former as an interim confidence-building measure in the transition to nuclear renunciation and the latter in order to keep the arsenal small and to signal moderation and restraint. Most prominently, Pervez Hoodbhoy has suggested that India and Pakistan should, as part of a bilateral nuclear treaty, agree to no first use. Hoodbhoy argues that NFU would actually benefit Pakistan. NFU would be an investment in stability and survival. In case of nuclear war, Pakistan would lose much more than India since New Delhi can inflict much greater nuclear damage (and presumably absorb much greater loss).

Pakistani skepticism or opposition to NFU seems to arise from the following concerns. In contrast to India, Pakistan's thinking on a no first use/first use policy is almost completely military-strategic. First of all, as in India and elsewhere in the world, there are those in Pakistan who doubt the efficacy and practicality of an NFU. In extremis, can Pakistan rely on India's leadership to abide by a no first use commitment? Is there any way of verifying that an adversary is committed to no first use?

Secondly, even if NFU were credible, acceptance of it would mean permanent Pakistani strategic inferiority and vulnerability. Given Pakistan's inferiority in conventional forces, the threat of first use is vital to its deterrent against India, while the actual use of nuclear weapons first may be vital to defence if and when deterrence fails.

Thirdly, there is a line of more offensive-minded Pakistani thinking that opposes an NFU. This view is that first use is intrinsic to Pakistan's exploitation of the "stability-instability" situation in South Asia. Protected by nuclear weapons, Pakistan is free to choose sub-conventional conflict with India, as in Kashmir: fearing Pakistani first use, India cannot cross the line of control in Kashmir or the international boundary further south as a way of punishing Pakistan for its interference in Kashmir. These Pakistani strategists regard Pakistan's support of cross-border terrorism in Kashmir since the late 1980s, the Kargil war in 1999, and the crisis of May-June 2002 as validating the correctness of their analysis. In spite of Pakistani provocations, India chose not to retaliate across the line of control or the international boundary.

Pakistan's interest in first use may in part be supported by a calculation that there are first uses of nuclear weapons against India that would not necessarily invite nuclear retaliation. Stephen P. Cohen suggests that the Pakistani army has conceived of a five-rung escalation ladder. Four of these involve the threat of first use or actual first use:

- Private and public warnings to India not to move its forces threateningly
- A demonstration explosion on Pakistani territory to deter India from a conventional attack
- The use of a "few" nuclear weapons on Pakistani territory against intruding Indian forces
- Nuclear strikes against "critical" Indian military targets, preferably in areas with low population and without much by way of infrastructure.

Of these four, the first two could well avoid Indian retaliation altogether since they would be carried out in Pakistan and would not target Indian assets. The second two, Pakistani planners might calculate, would be more provocative but might still not cause India to unleash a full retaliatory strike.

The three broad segments among nuclear analysts in India, namely, the 'rejectionists, the pragmatists, and the maximalists' are of the opinion that nuclear issues have not been articulated adequately in the draft nuclear doctrine. (14) It leaves open to question whether it considers the notion of "logic of nonproliferation"(15) to be preponderant in security considerations meaning a clear advantage in pursuing a proactive policy toward non-proliferation regime, or, whether or not India should rely on the "logic of deterrence"(16). The latter suggests that proliferation has stabilizing effects and nuclear weapons could and would deter war between India and an adversary having functional utilities. Similarly, some scholars find merit in the "existential deterrence"(17) involving the 1990 near nuclear flash point between India and Pakistan which envisaged both of the countries to convert their covert nuclear weapon program rapidly in to actual weapons. In July of 1999, in the aftermath of the Kargil crisis as the recently declassified papers suggest, both India and Pakistan were eye ball to eye ball with Pakistan having already decided to raise the stake to the nuclear level in order to force India to back down from the strategic forward positions in Kargil and its adjoining areas.(18) Yet, the dominant view has been towards a general definition of deterrence that looks at the situation in which "one side(the defender) threatens the other side( the challenger) with some form of punitive retaliation if the other side takes certain action."(19). It can also be argued that in

case of nuclear asymmetry, deterrence can be resorted to in the face of nuclear blackmail and hegemony and possible use of the nuclear arsenals by the other side. (20) It is inconceivable for a nuclear power to hope for a total disarming strike of its nuclear adversary and therefore escape retaliation. The Indian arsenal will be dispersed, mobile and camouflaged with various deception measures to make the adversary's task more difficult.(21)

The public opinion among the Indian elite were sharply divided in their assessment on the viability of going in for nuclear weapon capability. The elite in the economic affairs believed that "supporting nuclear weaponisation undercuts the prospects for growth and investment."(22) In contrast, those in the political and strategic establishment argued that "India's size and capabilities allowed it to pursue further nuclearization with minimal damage to the prospects for continued growth."(23)

In this context, the stand taken by anti-nuclear lobby deserve special mention. According to Arundhati Roy, Booker Prize winner, "who the hell conducted those opinion polls? Who the hell is the Prime Minister to decide whose finger will be on the nuclear button that could destroy everything we love- our earth, our skies, our mountains, our rivers, our cities and villages? Who the hell is he to reassure us that there would be no accidents? How does he know? Why should we trust him? What has he ever done to make us trust him? The nuclear bomb is the most anti-democratic, anti-national, anti-human, outright evil thing that man has ever made. If you are religious, then remember that this bomb is Man's challenge to God."(24)

The anti-nuclear movements that includes politicians, citizens' movements, environmentalists, feminists, progressive activists, etc have put forward different rationales for building a strong case against Indian nuclearization. They have based their arguments on three major premises. First, that nuclear weapons are strategically irrational weapons of mass destruction and hence can not provide security- no matter who possess them and to what number. Second, that the concept of nuclear deterrence can not stand on moral, political, legal, and cultural grounds; and third, that the Indian government's nuclear policy is "inseparably linked to a belligerent and male supremacist notion of militarized nationhood, which is not only anti-pluralist, communal, and masculinist, but also creates an unacceptably dangerous situation in escalating an arms race in South Asia." (25)

Long time India watchers find it ironic that India, the land of Gandhi, Mahavira, Mother Teresa, Buddha (as a matter of fact, the nuclear tests that India conducted in May 1998 was code named BUDDHA IS SMILING) which espoused the cause of non-violence in its long history of over five thousand years, chose to shun its oft-stated goals of global disarmament in favor of going nuclear in the summer of 1998. That India decided to use the permanent extension of the nuclear Non-Proliferation Treaty in May 1995 as a rationale for joining the nuclear weapon states only diluted its stand at various international forums which strive for a genuine non-nuclear world. (1.1. Draft Doctrine).

As if to provide a rationale for the shift in India's policy on nuclear issues, Mr. Jaswant Singh, a leading member of BJP and India's ex-External Affairs Minister, said in a parliamentary debate held on December 15, 1998, "Look at it as a crowded railway compartment. When you are trying to come into it, your perspective is one. When you are in it, you want the rules that will keep you in and keep the others out."(26)

It is to be remembered, however, that under the Indian political system, it is the Prime Minister who has the ultimate say in major policy matters such as on the crucial nuclear issue. "The actual policy choices are determined by the autonomous interests of the Prime Minister in office, who while taking into account the preferences of the strategic enclaves, the political elite, and various political parties have generally been acutely sensitive to the impact of the nuclear issue on economic development and foreign relations precisely because these variables must affect the living conditions of the large voting populace and, by implication, the political survival of the politician."(27)

### **Possible Cost factor and its ramification**

India now has a nuclear weapon capability. However, one can argue as to whether India can maintain overall economic growth rate in the face of the stupendous costs involved in researching and developing a nuclear program. (1.2. Draft Doctrine) Although it is difficult to make an accurate prediction of likely expenditures for both ongoing and planned expansion of India's nuclear program, one study quotes a figure of between 15 and 150 billion US dollars for achieving a minimum deterrence capability assuming India does maintain 30-50 bombs. (28) If India decides to increase the number to 400 or more,

the costs will be even more prohibitive. To put it within a comparative perspective, the United States nuclear program has cost an excess of 5.5 trillion dollars and India's neighbor to the north, China, has spent over 100 billion dollars. For a country such as India, where over 30 percent of the people live below the poverty line and the per capita income is \$382 (1998 estimate), the exorbitant costs may be too high for the country's limited resources. Instead of enhancing peace, stability and security, a disproportionate level of expenditures on nuclear weapons may have the opposite effect. Nuclear weapons may bring in more instability and insecurity in spite of the prestige and status factors that are usually ascribed to possession of such capabilities.

Politically, too, India's overall security in the South Asian region may be less stable today and headed towards "ugly stability" with the acquisition of nuclear weapons than with the overwhelming conventional forces which India has had since independence. Also, in the coalition-based Indian politics of today, it is more than likely that one or more constituents of India's government may play the nuclear card close to its chest purely for political gains and considerations. As the leading partner of the ruling NDA government in New Delhi, BJP was also under increasing pressure to raise the nuclear rhetoric and Pakistan baiting due to number of internal developments such as attack on India's Parliament in December 2002, bombing of Kashmir state secretariat in October 2001, and the upsurge of communal violence in the Hindi heartland of Gujarat. (29) Even the Congress Party wanted to dispel notion about the party being 'soft on national security' issues. This view also has been reinforced in May 2004 by the new government in New Delhi led by Dr.Manmohan Singh of the Congress Party. (30) On a societal level,



too, in a country which John Kenneth Galbraith termed the world's only "functioning anarchy", the unstable political environment and the staggering economic cost of a nuclear program is likely to trigger more social unrest and turbulence along caste and religious lines, and thus may offset any gains India might have in terms of enhanced status. Cumulatively, what would have been the sequence of events had an actual war broke out postulated the following. According to Dr. Chris Smith, "First, India would launch air strikes on the training ground used by insurgents who crossed in to Kashmir. In retaliation, Pakistan would attack somewhere along the border between the two countries. India, with its much superior conventional forces would then counter attack. Presumably at that critical point, there will be enormous potential for a nuclear counterstrike from Pakistan, followed by retaliation from India."(31)

### **Other Ambiguities in the Nuclear Doctrine**

The draft doctrine also mentions the notion of entity which in the strategic literature implies "non-state actors"(2.4. Draft Doctrine) and more plainly, "terrorists". With the break down of the old Soviet Union, there is a growing fear in intelligence circles that terrorists and some rogue elements in and around the South Asian region may acquire fissile materials. If so, can India go after these entities, for example, against remnants of former Taleban and Al Qaeda forces of Afghanistan as well as other foreign mercenaries and Pakistan based mujahideen outfits such as, Hizbullah, Lashkar-i-Toiba and Jaish-i-Mohammed who are believed by Indian intelligence officials to have crossed over to Pakistan occupied Kashmir valley along the Line of Control and even termed as

"freedom fighters" by forces supporting autonomy for the people of Indian occupied Kashmir? There needs to be some clarity in this regard in the draft document.

According to a report published in New Delhi based Institute of Peace and Conflict Studies(IPCS), an influential think tank, there are significant discrepancies in India's nuclear doctrine. Some of the highlights of the IPCS report are as follows:(32)

- No First Use of nuclear weapons is beset with problems about how India would respond if it was attacked with CBWs by a Non State Actor, given the volatile situation in South Asia.
- Moratorium on Nuclear tests has not addressed tests in laboratories.
- While there is need to have some level of transparency about command and control, some remnant of ambiguity could strengthen deterrence. The non-identification of the chain of political and military succession brings out the issue of its positive/negative impact on nuclear deterrence in South Asia.
- A pivotal role has been accorded to the National Security Advisor (NSA), who heads the Executive Council (EC) and would function as a conduit between the political and military wings of the NCA and also function as the Principal Secretary to the Prime Minister. He remains busy tackling both domestic and international crises. Additionally he travels a lot.
- Other options also need to be explored. The Kargil Review Committee called for a full time National Security Advisor, and grooming a second line of leadership, which as anathema for New Delhi's bureaucracy, driven by personality factors.

- An important question that remains unclear is who will exercise military control over the Strategic Forces during peacetime – Chairman, Chiefs of Staff Committee /SFC or some other committee. The Strategic Forces Command will perforce have to be a tri-Service command. The real problem is that the Nuclear arsenal might be weaponized, but not deployed thereby reflecting a de-mated status. Nuclear weapons assemblies are with the Defence Research & Development Organisation (DRDO), the weapon cores are with the Atomic Energy Commission (AEC), and delivery systems are with the Services.
- How these dispersed assets would be brought together and the system worked in a wartime situation when communications could get affected and quick decision-making is needed, has not been clarified. The issue of how the SFC would integrate the nuclear weapons with the delivery vehicles during a conflict situation remains unanswered, but greater transparency would have implications for the stability of Indo-Pakistan ties.
- The Political Council, Executive Council do not conform to a command structure hence it raises doubts about its efficacy during a nuclear attack.
- The Civil bureaucratic structure has diffused accountability, and does not reveal who is accountable to whom, or what would be the line of succession if a decapitating strike succeeds.
- The Command Authority must be transparent, and the chain of command for the use of nuclear weapons should be made transparent. An increased level of transparency strengthens credibility and has implications for stability in South Asia.

- One can play with numbers regarding credible minimum deterrence. Who will determine what should constitute minimum deterrence remains unresolved between the scientific and strategic community, while no requirement seems to have been forwarded by the armed forces.
- There have to be clear 'red-lines' or thresholds to launch a nuclear strike or retaliate or to cross the LoC. There was no response, except to deploy the troops after the attack on the Indian parliament. There has to be a clear message regarding an assured response or retaliatory strike, which needs to be provided for.
- The threat of use of CBWs will generate an ambiguous situation if there is an outbreak of disease like plague. Should India respond with a nuclear strike? If it does not, then what would be the implications for its credibility as a nuclear power? There are additional questions on verifiability of a suspicious outbreak of disease.
- When deconstructed 'Credible minimum deterrence' raises three pertinent points – credibility raises the issue of transparency versus ambiguity and the question of survivability; minimum is a function of numbers-minimum against China might exceed the maximum for Pakistan, since deterrence is a psychological game. The requirement of a triad is a maximalist response in this situation and will be viewed as such in the neighbourhood.

- A limited war under the nuclear shadow should be confined to limited objectives. Limited war cannot remain limited as it carries the seeds of escalation. A losing side will always want to use all the weapons at its disposal. As a concept this doctrine has been discarded in the west but has found adherents in India.
- Security in the present context is being discussed from the state-centric viewpoint. In this perspective Human Security has been relegated to the background and internal security not given any significance. It does not take into account the emergence of non-state actors. Nuclear deterrence is futile against terrorists and religious extremists.
- The issue of nuclear stockpile numbers remains problematical, as it is dependent on the strategic calculations of the adversary. What deters is a state of mind. India needs to formulate a policy, whilst its adversarial state is run by an autocratic, risk-taking, adventurist regime.

In, 2.5 of the draft nuclear doctrine, the document states, “ India will not resort to the use or threat of use of nuclear weapons against states which do not possess nuclear weapons, or are not aligned with nuclear weapon powers.”(See, annex)

Does this imply that “India could conceivably use its nuclear weapons against countries such as Japan and Germany, who are aligned or receive security cover from the United States either through bilateral treaty or through NATO?” (33) As another sign of seeming contradictions, India's official government spokesman dissociated itself from remarks on India's nuclear doctrine and nuclear programme targeted against big powers, especially

the US and China made by Bharat Karnad, a former member of the National Security Advisory Board, saying it "appears to reflect his personal view." (34)

Even with an overwhelming conventional superiority in its armed forces, India has had a series of low intensity conflicts with its neighbors, China and Pakistan, with some glaring examples such as in Aksai Chin in the Ladakh region and Kargil along the Line of Control in the Kashmir valley as was witnessed in the summer of 1999. The introduction of nuclear weapons along with maintaining a strong, viable conventional force will have an enormous cost which India can ill afford.

India at the present time has only land to air ballistic missiles such as Agni, Prithvi and Dhanaush that can deliver a 20-kilotonne device. With some additional technical prowess, India may also be able to deploy a nuclear device from a MIG, Mirage or Jaguar aircraft that are under its Air Force's domain. On Pakistan's side, it can use Abdali, Ghauri, Ghaznavi and fit it with nuclear capable missiles aiming at Indian targets. India can not retaliate effectively against its adversaries when it is just in the process of having mobile launchers, hardened silos, submarine based nuclear weapon storage. The new government in New Delhi only on May 27, 2004 has appointed a task force to work on the indigenous nuclear submarine project, code-named the Advanced Technology Vessel(ATV) to give it a kick-start. The Strategic Air Command required to keep some of its air crafts on nuclear alert at all times as does the United States has recently been implemented. The decision that has been made so far indicates the following: (35)

In a cabinet meeting chaired by Prime Minister Atal Bihari Vajpayee on September 1, 2003, the government reviewed the arrangements in place for the Strategic Forces programme including the Chain of Command and transfer of nuclear assets to it. On the basis of the recommendations made by the Executive Council, the Political Council also undertook a number of important policy decisions on further development and management of the programme. These decisions upon implementation are likely to consolidate India's nuclear deterrence. This high-powered meeting was attended among others by Deputy Prime Minister L K Advani, Union Defence Minister George Fernandes, Union Finance Minister Jaswant Singh and National Security Advisor Brajesh Mishra, besides some top Government and defence officials.

The Council, which met for the first time after the Nuclear Command Authority was set up on January 4, 2003, examined all the aspects of the nuclear programme of the country.

Special stress was laid on the Chain of Command, transfer of nuclear assets and the relationship between the three Services, the institution of Chief of Integrated Defence Staff(CIDS) and the Strategic Forces Command.

The transfer of assets including ballistic missiles and nuclear weapons from the Army, Navy and Air Force, and the scientific establishment, to the Strategic Forces Command, and the drill to be followed, came under scrutiny of the Political Council, it was learnt. The Council also reviewed the preparedness of the Strategic Command vis-a-vis the platforms to carry the weapons including air, land and under-sea, and the doctrines adhered to by the Strategic Forces Command.

The security scenario in the Indian sub-continent with regards to the nuclear threat, the nuclear capabilities of the neighboring countries and the developments in some parts of the world in this sphere were also discussed.

The Political Council was formed to lay down the political principles and administrative arrangements to manage the country's nuclear arsenal, which is under civilian control with the final authority resting with the Prime Minister. This council comprises members of the Cabinet Committee on Security (CCS) and the National Security Advisor.

While Mr. Brajesh Mishra was the first National Security Advisor from 1999 to 2004, in the new Congress-led government that was formed in late June 2004 in India, former Foreign Secretary, Mr. J.N. Dixit, was appointed as the new National Security Advisor.

The Executive Council includes the Chairman, Chiefs of Staff Committee of the three Services, the three Service chiefs, heads of intelligence agencies, the scientific establishment engaged in the nuclear programme and the National Security Advisor.

While the Political Council and the NCA is headed by the Prime Minister, the Executive Council is headed by the National Security Advisor.

Even the United States, which originated the concept of 'massive retaliation' in the early 1950s shifted to a more 'flexible response' and 'mutual assured destruction' strategies in 1960s and 1970s. US defense policy went through further transformation during the Reagan years from the 'deployment of cruise missiles' to the 'Strategic Defense Initiative' in the 1980s. Under President George W. Bush, Jr; who assumed office in



January 2001, the United States has made the National Missile Defense (NMD) program as its major policy plank. With India's limited resources and in the absence of any tactical weapons and the absence of the position of Chief of Defense Staff to administer the nuclear arsenal and act as a single point military advisor, it is doubtful that it can have a sound nuclear mechanism in place in the immediate near future.(36). In order to maintain 'strategic balance' Pakistan taking note of India's overwhelming superiority in conventional arms and manpower may be tempted to go in for a first strike option. Pakistan is very likely to exercise this option to counter India should the latter pose a serious threat to Pakistan's territorial integrity leading to its dismemberment and further fragmentation. (37) Pakistan's President Pervez Musharraf while proclaiming to be in full control of his nation's strategic assets did not hesitate to threaten India to use nuclear weapons in the event of latter violating the "line of control or the international border."(38). In this context, it is worth mentioning the comments made by General Khalid Kidwai, Head of the Strategic Plan Division of the Pakistan's Army. "Nuclear weapons are aimed solely at India. In case, deterrence fails, they will be used, if,

- a. India attacks Pakistan and conquer a large part of its territory(space threshold)
- b. India destroys a large part either of its land or air forces( military threshold)
- c. India proceeds to the economic strangling of Pakistan(economic threshold)

India pushes Pakistan into political destabilization or creates a large internal subversion in Pakistan (domestic destabilization)"(39)

Pakistan, however, is acutely aware of asymmetry in military balance in South Asia. In the words of General Jehangir Karamat, a former Chief of Army of Pakistan, "Pakistan accepts the imbalance inherent in the equation with India and will not seek to match capabilities. Pakistan, will, therefore, modernise and upgrade its military power in carefully selected areas so that its deterrent and defense capability are not degraded and it never faces a scenario of overwhelming strategic superiority from India. This deterrence is the best guarantee of stability because an unacceptable imbalance can have serious implications."(40)

Even limited war, in conventional sense, between India and Pakistan can lead to nuclear conflict. Four factors can turn any conventional conflict, however, 'limited' in nature, in to acquiring a nuclear dimension. (41)

- a. The politico-military objectives which India considers limited, might be considered unlimited and unacceptable by Pakistan. Islamabad plans to use nuclear weapons in the event of a deep military offensive by India. How 'deep' would be deep enough for India to obtain its objective, and how 'deep' would be too much for Pakistan, is unclear and will always remain so. Issue of extent of loss of territory, image, legitimacy are important.'
- b. Pakistan's military has shown a greater inclination towards a possible use of nuclear weapon. In Pakistan, nuclear command and control are exclusively in the hands of the military.
- c. In the case of India and Pakistan, inadequate command and control structures, deficient early warning arrangements and perceptions about a doubtful capacity to

launch a retaliatory "second strike" send mixed signals which enhance the risk of a nuclear exchange

- d. A possible reappraisal of India's operational doctrine following the nuclear tests can further encourage Pakistan to take recourse to atomic weapons.

It is not clear in the document whether "launch-on-warning" will be followed. Does it mean India will endure repeated nuclear attacks before it retaliates in a way unacceptable to the aggressor in the belief that the threat of massive retaliation will deter the attacker? (2.7. Draft Doctrine). But then, from a logical point of view, will there be anything left to defend after a first massive nuclear attack on India and whether the adversary will misperceive and miscalculate in the absence of any dialogue? Also, there are no identified 'red lines', the crossing of which would trigger a nuclear conflict between India and Pakistan.

"Hawks in India think they can manage a limited war with Pakistan without either side resorting to nuclear arms. Pakistan's hard liners believe that demonstrating the will to use nuclear weapons is important in containing an Indian threat. If the hawks on both sides carry out their threats, India could start a limited conventional war, and Pakistan would take it to the nuclear stage."(42)

What is worrisome are the increased levels of indulgence in nuclear in nuclear brinkmanship by both countries. In response to former Chief of Pakistan Army, General Mirza Aslam Beg's declaration to make a first strike, Indian Prime Minister Vajpayee of

India stated that no weapon would be spared in self-defense and "whatever weapon is available, it would be used no matter how it wounded the enemy."(43).

The 'hot line' that was restarted among the leaders at the highest level in both Islamabad and New Delhi following a 20-year gap in 1997 is in disuse now. Although some movement has been made in this regard during the June 19-20, 2004 meeting at the foreign secretaries level, yet no firm time table been set as to when the Hot Lines might be activated and operational. According to Dr. Pervaiz Hoodbhoy, Professor of Physics at the Quaid-e-Azam University in Islamabad, Pakistan,

" Should a nuclear war occur, it may well be that the order is not given by the Chief Executive or the Prime Minister or whoever. That decision may be taken by a Brigadier, who will decide whether you and I live or die. Any missiles fired by India or Pakistan would take four to eight minutes to hit its target. This means both countries are prepared to launch a nuclear strike on the basis of a warning. In a few hundred seconds, the credibility of the warning must be gauged. Is it the blip on the radar screen really a missile? If so, is it, likely to be carrying a nuclear warhead. An alert must then be flashed to the strategic command center. And, if necessary, a launch order transmitted to the missile site."(44)

The problem of managing these nuclear weapons in the real world poses unprecedented challenges. As one description has vividly laid out, managing nuclear weapons "involves the unpredictability of circumstances and human behavior interacting with complex sensors, communications systems, command centres and weapons. The smallest details

can assume central importance and range widely in substance, from the legitimacy of presidential succession to computer algorithm, from the psychology of stress to the physics of electromagnetic pulse .. even the most advanced experts and the most experienced practitioners are narrowly and incompletely informed. No one understands the whole."(45)

It is also doubtful whether posture control vis-a-vis nuclear weapons been set in place by India. "Posture control involves a set of interlocked technological and administrative systems, with associated procedures and plans to ensure nuclear weapons that can be used by a national authority when it decides to do so. These systems include: 1. The early warning system 2. The procedure to assess the nature and extent of an attack that may be taking place 3. The command and decision centers 4. Communication between leaders and nuclear-armed units, and 5. Military units equipped with nuclear armed missiles or other delivery systems. "(46)

If Pakistan perceives that it will be going downhill in a conventional conflict, it may use nuclear weapons to deter India. Pakistan's minister for Railways and Communications, Javed Ashraf Qazi's comments are quite telling in this regard.

"Pak will not hesitate to use nukes against India. If it ever comes to annihilation of Pakistan, than what is this damned nuclear options for, we will use against the enemy. If Indians destroy most of us, we too will annihilate parts of the adversary. If Pakistan is being destroyed through conventional means, we will destroy them by using the nuclear

option ... as they say 'if I am going down the ditch, I will also take my enemy with me.'(47)

### **Debating the Issue of Credibility in the Nuclear Doctrine**

How can an adversary know what is credible.(4.1 & 4.3.Draft Doctrine)? Supposing the adversary is in an irrational state or does not believe in rational thinking or discourse. It may very well tolerate massive destruction of all its major cities with the belief that it will be able to knock out at least one major Indian city either in a first attack or in a retaliatory attack. Will that be acceptable to Indian political leaders? It goes back to the central element of DND (Draft Nuclear Doctrine), which is “Credible, Minimum Deterrence”.

What is credible may not be minimal and India may have to adopt maximalist position in order to maintain minimum deterrence. Also, by the same logic, deterrence will fail by coaxing the adversary to take advantage of India’s minimum nuclear deterrence policy and inflict a nuclear attack on India which India’s adversary may think to be acceptable and tolerable on India’s part. Deterrence should be credible otherwise it can not deter.

What is credible to one leader at the top of the chain of command might not be so for a commander who is in actual operational level. Deterrence is after all a mind game. As per India's defense equation with Pakistan, the dilemma is obvious. If India submits to Pakistan's irrationality, it risks being blackmailed into inaction. If India chooses to call the bluff, it invites a pre-emptive strike by Pakistan.(48) Without going into specifics, Mr. K. Subrahmanyam, a leading member of the India's National Security Advisory Board, which authored India’s Draft Nuclear Doctrine, has argued for one hundred and fifty nuclear warheads for an effective Indian deterrent against Pakistan and China.(49).

General K. Sundarji, India's former Army Chief of Staff, however, has opined that India needed a minimum of 20 nuclear weapons of 20 kilotons each to deter a small country such as Pakistan and about 50 such weapons to provide a credible nuclear deterrence against a large country such as China.(50) Estimates of the nuclear warheads belonging to India and Pakistan vary. Defense experts at Jane's speculated in 2002 that Pakistan could have as many as 150 against an Indian arsenal of 200 to 250. However, the Washington based Centre for Strategic and International Studies provides a lower estimate, suggesting that India has about 60 nuclear warheads and the Federation of American Scientists suggests that Pakistan possess about 25 warheads.(51)

The concept of nuclear deterrence was first evolved by US Joint Chiefs of Staff who argued that the 'threat of the use of atomic bombs would be a great deterrent to any aggressor which might be considering embarking upon an atomic war.' Moreover, 'minimal' deterrence might not be achieved, when it has been stated in the draft doctrine that it is India's intent to develop nuclear weapons based on a 'triad of aircraft, mobile based missiles and sea-based assets.' ( 3.1.Draft Doctrine). The annual report (2003-2004) of India's Department of Atomic Energy has not stated what the 'minimum' is in terms of research, development and manufacturing of nuclear weapons as determined by India's nuclear policy.

### **Questions on India's Tenuous Chain of Command**

Under India's constitutional system, the prime minister is the head of government and the president is the head of state. It is also mentioned in India's constitution that it is the duty

of the president to aid and advise the prime minister and the cabinet. In a nuclear stand off, who advises whom, to what degree and to what consequence? (5.1. Draft Doctrine)

Also, unlike in the American system, where there is a clear chain of command should the president be temporarily incapacitated due to death, resignation or impeachment, there is no such provision in the existing Indian constitution other than following the official protocol in order of precedence. On a comparative note in the US on 9/11(52), the president was taken to the strategic forces headquarters and the vice-president whisked away to a secret location. Whenever a threat is anticipated, the vice-president is separated and kept in an unknown destination in constant touch with the president and other members of the National Security Council through safe and uninterrupted communication channels. US law provides for succession of up to more than twenty. Military succession is also well defined. The command chain runs in normal times from the president, to the Defense Secretary, the Chairman, Joint Chief of Staff and the strategic forces both in the US and NATO. There is also the danger of conflict between the civilian and military units battling over control of nuclear button. While India's airforce feels it has the capability to deliver nuclear weapons, the navy feels the ultimate nuclear decision making in the operational arena belongs to it as it had both maritime and aviation roles. On June 23, 2004, the Indian Navy announced maritime doctrine that envisaged primacy among the armed forces by arguing that it was the most potent force of the nuclear triad to launch an attack with nuclear weapons if circumstances warranted. (53) Belatedly, the government of India is experimenting with the idea of creating a cabinet sub-committee on national security matter as well as a chief of defense staff in order to provide a single



point of military advice to the government. (54) Defense Minister George Fernandes on October 5, 2003, has declared that a nuclear command chain, including alternative nerve centers was in place giving India an effective retaliatory capability. He disclosed that other nuclear command and control structures like nuclear command shelters including one in Delhi's under ground metro rail tunnels and VVIP shelters around presidential palace, prime minister's office and the Indian parliament building have also been built.

(55) What is also needed is to create a tri-service strategic forces command for maintaining functional control over the nuclear weapons and related matters such as surveillance, early warning, intelligence, targeting, damage assessment system, etc. The strategic triad in the strike force should also make sure that the "command and control chain from the political level to the implementing level should also reflect its survivability under the worst conditions of decapitation attack. This is the essence of deterrence."(56)

An ideational system for India must include,

- "a. enunciate nuclear deterrence doctrine
- b. continue development of testing doctrine, methodology, and staff
- c. articulate war termination concepts
- d. acquiring supporting infrastructures such as intelligence and warning system, meteorological system, secure communications network, physical command and control infrastructure, damage assessment system, develop procedural system such as posture negative control system, national command authority, civil-military coordination arrangements, nuclear planning structure."(57)

India's nuclear doctrine also claims that “space based and other assets shall be created to provide early warning.”(5.6. Draft Doctrine) Apart from the stupendous costs and technical challenges needed to develop such assets, the proximity of Pakistan and China will make nuclear early warning almost meaningless. Once launched, missiles would take somewhere between 4 to 8 minutes to fly to Delhi, India’s capital. This is too short a time to determine “early warning”. One can compare this period with the 20-30 minute flight time in the case of ICBM, flying from Russia to the United States or vice versa which allows a greater window of maneuverability to check signal and other technical systems. Even with the sophisticated early warning system, it is known that between 1972 and 1984, the US early warning system showed over 20,000 false alarms of a missile attack. Over 1,000 of them were considered serious enough for bombers and missiles to be placed on alert. In the Indian case, a crisis of similar nature might lead to a nuclear launch.”(58)

Sometimes, in a crisis situation, two nations at the forefront of conflict learn different lessons. During the India-Pakistan crisis of 2002, from the Indian point of view, its nuclear deterrent neutralised Pakistan's and the former could successfully call Pakistan's bluff and thus brinkmanship was used as a viable policy. From Pakistan's perspective, the combination of conventional and nuclear deterrence worked in sending India a strong message and in calling India's bluff.(59)

The doctrine states (6.1. Draft Doctrine) explicitly that unauthorized access or use of nuclear weapons will not take place. What happens if the Prime Minister or the

designated successor(s) and the entire communication systems are wiped out in a first strike? Who controls the nuclear button? Will it be political operatives in the Prime Minister's office or the field commander in actual charge of the nuclear weapons or the civilian bureaucracy? How will the coordination in policy formulation and rapid response mechanism be maintained in the National Security Council that was formed in the aftermath of the 1998 nuclear test by the BJP led government? Would it be possible for a lower ranked officer to launch a weapon without authorization in the atmosphere of mixed signals and/or political vacuum emanating from New Delhi? Even at the highest level, there may be moments of rash decision making and recklessness. "The former US president, Richard Nixon, under the strain of his final days in the presidency, is said to have sobbed, beaten his fists on the power of his office, and brooded over his ability to release the forces of nuclear disaster." (60). Also, in a surprise first attack by the other side, could India retaliate with rapid, punitive response when some of the missiles may be submarine-based or in mobile launchers status and which require safe and secured communication lines? India would also need "a massive investment in surveillance and target acquisition infrastructure by way of satellite, aerial reconnaissance and human intelligence" which it clearly lacks at this juncture due to its limited resources to do so. (61) There have been some transparent steps taken in this regard. As per new directions taken by Indian Cabinet, "once the attack is verified through an alternative source, the Nuclear Command Authority comes into play. It has two components - the political and Executive Councils. The Political Council need not meet physically in New Delhi. If by chance, the political council is eliminated in the initial attack, India has alternative system made up of specially designated constitutional authorities, to authorise retaliation. The

government will also convert the Prime Minister's plane into a fully operational centre, like the United States' Air Force One. Once the political council orders retaliation, the EC conveys it to the SFC(Strategic Force Command). The SFC is capable of taking decisions within minutes and all it needs is time to mat the warheads into the platforms."(62)

Furthermore, as former Army Chief of Staff, V. P. Malik elaborated, "the escalation ladder would be carefully climbed in a carefully controlled ascent by both protagonists."(63)

### **Are the Provisions related to Disaster Management Adequate?**

The open ended assertion (6.3. Draft Doctrine) that an appropriate disaster control system shall be developed to deal with potential accidents is open to criticism. Given India's extremely dismal record in disaster management from the super cyclone of 1999 in Orissa to the earthquake in Gujrat, it is indeed doubtful if India, at the present time, has anything even close to the capabilities of managing a nuclear disaster, should it occur either from a nuclear first strike or from a retaliatory strike by the adversary.

In a chilling report published by Britain based *NEW SCIENTISTS*, it was reported that a massive loss of men and materials would occur should a nuclear exchange take place between India and Pakistan. As per this report, " At least 2.9 million people would be killed and another 1.4 million severely injured. based on 10 Hiroshima type bombs. 5 in India ( Bangalore, Mumbai, Kolkata, New Delhi, Chennai) and 5 in Pakistan (Karachi, Lahore, Faisalabad, Islamabad, Rawalpindi) India side: 1.5 million dead and 900,000 injured. And, Pakistan side; 1.2 million dead and 600, 000 injured. If the bomb explodes on the ground instead of in the air, resulting radioactive dust could kill more people

Due to prevailing winds from west to east, India would incur more casualties than Pakistan. This is just ten bombs, which is  $1/10^{\text{th}}$  of estimated nuclear bomb both countries are believed to have possessed."(64)

Another report provided even a more scary picture. "Nuclear exchange could kill up to 12 million people at one stroke plus injury up to 7 million. Even a so-called ' limited war' would have cataclysmic effect overhauling hospitals across Asia and requiring vast foreign assistance to battle radioactive contamination, famine and disease. More deaths would occur later caused by urban firestones, ignited by the heat of a nuclear exchange, deaths from longer term radiation, or the disease and starvation expected to spread."(65)

Lately, however, India's Union Home Ministry is raising eight battalions to tackle natural disasters and combat nuclear, biological and chemical warfare. As per its report, "The National Emergency Response Force battalions will be deployed in strategic locations under the supervision of the director-general of civil defense. It would be a special force like the Rapid Action Force to be under the overall control of Central Reserve Police Force. The Bhabha Atomic Research Centre will train select officers of the Central Industrial Security Force(CISF) and the Indo-Tibetan Border Force(ITBF) on responding to nuclear disasters, and these officers will in turn train their subordinates in disaster management. Four battalions will gain expertise only in nuclear, biological and chemical warfare. Capsules on disaster management are being included in the training schedules of all central para-military forces, the Indian Administrative Service, the Indian Police Service, The Indian Foreign Service and State Police Forces so that government officers are equipped with the basic knowledge on how to respond in cases of emergency."(66)

### **Present Nuclear Capabilities of India and Pakistan: A Profile**

At the present time, India's nuclear delivery system consists of assault aviation French Mirage 200 H fighters, which will be supplemented by Russian Sukhoi SU-30 MIC multi role fighters, along with a limited number of Prithi-I and II short-range ballistic missiles as well as Agni and Dhanaush medium range ballistic missiles.(67) While none of the nuclear delivery systems it possesses is capable of providing deterrence against China, India has been developing a long range ICBM version of Agni with a range of 5,000 km in early 2001 and 12,000 km by 2003 to fill the vacuum. Jane Intelligence Review's report published in March 26, 2001, has stated that Pakistan, India's traditional adversary, has nearly completed development of a solid fuel missile that could strike key Indian cities from deep within Pakistan territory through Ghauri-series of liquid propelled missiles in a offensive operation and Shaheen-series weapons as defensive measures. On May 24, 2002, Pakistan also tested Ghauri missiles that has a range of 1,500 kilometers (1,000 miles) that can hit most populous cities of Northern, Central and Western India. The father of the Pakistan bomb, Dr. A. Q. Khan, in a declaration has asserted that Ghauri missiles could "wipe out thrice, all the big cities of India." (68). Pakistan has also established the nuclear command authority in February 2000 with three components: an Employment Control Committee, the Development Control Committee and the Strategic Plans Division. Pakistan also has set up a nuclear regulatory authority to bring coordination in its nuclear program.

India also successfully test fired Brahmos, the supersonic cruise missiles with a range of 290 km for the first time on November 9, 2003 that can travel at Mach 2.823 and has been configured to be launched from either land, ship, sub-marine and aircraft using liquid ramjet technology.(69)

### **Status of Nuclear Non-Proliferation Regimes**

In the present environment, with India having its draft nuclear doctrine widely circulated in the aftermath of the nuclear blasts in May 1998, some people may voice support for India to sign CTBT in order to see the entire gamut economic sanctions and other restrictions imposed upon India lifted. Countries such as the United States very much hope that India will comply with CTBT and abide by other international safeguards.(70) Although it(US) no longer insists India to sign either CTBT or NPT, the United States is fully aware that the effectiveness of a carrot and stick strategy "will depend on sanctions and incentives that are carefully targeted, vigorously monitored and enforced and sustained. Such a strategy requires cohesion within the enforcing state or coalition of states and must, above all, serve a coherent policy and consistent goals."(71).

In the United States itself, there has been a growing support in favor of ratification of CTBT after the US Senate voted against it in October 1999. (72)

However, the basic rationale for India not signing the CTBT still remains the same.

India's concern was conveyed on 20 June, 1996, when the Indian representative rejected the text presented by the Chairman at the Conference on Disarmament.:

“The CTBT that we see emerging...(is) not the CTBT India envisaged in 1954. This cannot be the CTBT that India can be expected to accept...Our capacities is demonstrated but, as a matter of policy, we exercise restraint. Countries around us continue their weapon program, either openly or in a clandestine manner. In such an environment, India cannot accept any restraints on its capability, if other countries remain unwilling to accept the obligation to eliminate their nuclear weapons. Such a treaty is not conceived as a measure towards universal nuclear disarmament and is not in India’s national security interest. India, therefore, cannot subscribe to it in its present form.” (73) Even Russia supports India's nuclear weapons as those are "based on its dire necessity to ensure national security and such weapons playing a positive role in ensuring peace and stability in South Asia." (74) Unless the situation at the international and regional level changes drastically, this may very well be India’s position for the foreseeable future.

### **Confidence-Building Measures and the Issue of Kashmir**

The escalating situation in Kashmir, the bone of contention between India and Pakistan since 1947, may yet provide a flash point and may induce both countries to come to a negotiating table and to opt for nuclear deterrence and quick implementation of 'enforceable and verifiable' confidence building measures which may include simultaneous signing of CTBT and other international safeguards and ushering in of citizens diplomacy. The statement made by Gen. Pervez Musharraf on December 18, 2003 to be flexible on Kashmir issue and be ready to bend on his UN Kashmir baggage by keeping aside UN Security Council Resolution is a welcome sign and should be explored further. (75) Elaborating his vision for the resolution of the long tangled Kashmir



problem, Musharraf outlined a four-step approach. It involves recognition of the centrality of Kashmir for the settlement of all disputes between India and Pakistan, commencement of a dialogue on that basis, elimination of solutions not acceptable to India, Pakistan and Kashmiris, and initiating the process for finding a solution acceptable to all parties.(76)

On Kashmir, both India and Pakistan have realised an urgent need in developing a structured dialogue.(77) This may include the following in terms of ushering CBMs:

- Formalizing structure of dialogue, in terms of mechanisms and issues involved in the dispute
- Formal recognition by the two sides that there is no military solution to the Kashmir dispute
- In determining the wishes of the Kashmir's population, representatives of all different constituents and faiths of J & K need to be effectively involved in the dialogue process
- Encouraging and initiating intra-Kashmir dialogue on both sides of the LoC on the final status of Kashmir
- Involving people of Kashmir in the bilateral dialogue process of Kashmir
- Setting a timeframe for structured dialogue on Kashmir
- The resolution of the Kashmir conflict and restoration and development of mutual trust should be treated as interdependent processes
- Kashmir solution must be based on the principle of mutual respect of India and Pakistan have for each other and dignity and justice for the people of Kashmir

- The pursuit of solution around zero-sum game needs to be avoided
- The process of de-escalation of hostilities needs to be initiated and efforts should be made to de-link Kashmir from point-scoring domestic agendas
- The hostile domestic propaganda around Kashmir in both electronic and print media needs to be stopped
- Unofficial dialogue through Track-II should be encouraged by the two governments to assist official-level talks between India and Pakistan
- The heads of governments of both sides should meet twice a year to assess the progress of the dialogue and sort out the deadlocks around various points

On the more immediate issue of de-escalation along the Line of Control in Kashmir, some of the CBMs suggested along these lines can also be pursued. (78)

- Relocation of heavy weapons which are considered a major cause of tension-escalation across the LoC
- Exercises along the LoC and working boundary may not exceed one division involving 12,500-15,000 troops, and the number of combat vehicles must not exceed 100 combat vehicles and 50 artillery pieces
- Continuous scheduled and unscheduled visits to forward areas by journalists, representatives of various national and international human rights organizations, diplomats, defence and UN military observers.
- Commitment not to violate airspace across the LoC/Working Boundary and military commanders of India and Pakistan to meet and explore the reduction of troops in both Indian and Pakistan administered Kashmir

Pakistan's General Pervez Musharraf's visit to India on July 14-16, 2001 provided a window of opportunity to bring India and Pakistan closer to some kind of negotiated settlement on the Kashmir, CTBT and other related issues. However domestic constraints in both India and Pakistan prevented Mr. Vajpayee and Mr. Musharraf in making more tangible progress on confidence building measures beyond what the two countries agreed in 1988 that included not to attack each other's nuclear facilities, establish a hotline between the two nation's general headquarters and work towards a "strategic restraint regime." (79). Similarly, a mutually agreed formula between India proposed no-first use of nuclear weapons and Pakistan proposed non-aggression pact and in declaring South Asia as a nuclear weapon free zone can also be pursued by interested parties. General Pervez Musharraf on May 5, 2003, made a grand gesture of peace, mooted a no-war pact with India, followed by the de-nuclearisation of South Asia, provided, of course, the Kashmir issue was resolved first. (80) In this context, the June 19-20, 2004 meeting at the foreign secretaries level between India and Pakistan generated more confidence building measures including setting up of a Hot Line at the respective ministerial level as well. This meeting also held preliminary discussions on India's new foreign minister, Mr. K. Natwar Singh's proposal to evolve and study the feasibility of a common nuclear doctrine between India, China and Pakistan in order to bring peace and stability to the region. (81) During February 2004 meeting, it was decided by the respective foreign secretaries that talks on Siachen, Tulbul Navigation Project, Sir Creek, Terrorism, Drug Trafficking, Economic and Commercial Cooperation and promotions of friendly exchanges in various fields would be held at different levels in July 2004. (82) Another

measure that can be tried is a concerted effort on the part of the permanent members of the UN Security Council to act as honest facilitators “to help in ushering a common, strategic dialogue and language on arms control in South Asia”(83) and foster open communications among the parties concerned. But then, the concept of nuclear deterrence for two South Asian rival countries with deep rooted historical animosities and regional ambitions may be an uphill task unlike the case of the United States and former Soviet Union during the Cold War years who stayed broadly within the perimeter of deterrence. Even in the case of US and the Soviet Union, they almost came to the brink of nuclear war on more than one occasions including the now famous Cuban missile crisis of 1962. For a more transparency in communication and ushering in a meaningful dialogue between the India and Pakistan, one can examine the feasibility of establishing an international university located in the border area between Lahore of Pakistan and Amritsar of India which would be devoted to sustaining peace and security and conflict resolution under the aegis of the United Nations.(84)

It is fair to surmise that neither India nor Pakistan has developed an acceptable command and control system of their new found nuclear arsenals at this time. Nor have any concrete contingency plans been envisaged for the day after as other declared nuclear powers have done. Even a preliminary study of basic nuclear risk reduction measures (NRRM) in the four key areas of potential risks such as miscalculation, unauthorised use, accidents and panic behaviour as proposed by members of an influential peace group, MIND (Movement in India for Nuclear Disarmament), are yet to be initiated by either India or Pakistan.(85) According to Praful Bidwai and Achin Vanaik, , "the role of

NRRM should not be exaggerated. NRRMs can make South Asia less unsafe in nuclear terms. But they can not make it nuclear safe. NRRMs or kindred confidence-building measures have another limitation. They become most effective when located in a cooperative context. But that is no excuse for not beginning a process to negotiate NRRMs for the safety and security of South Asian peoples."(86) Separately, Washington, DC based think tank( Henry L. Stimson Center) has proposed establishment of nuclear risk reduction centers(NRRCs) in New Delhi and Islamabad to build mutual trust between India and Pakistan. As per this report, setting up nuclear risk reduction centers may be promptly negotiated and implemented without waiting for the resolution of the Kashmir dispute, which might take time due to its own dynamics and complexity. NRRCs, may, thus become the highest level central coordinating institutions for the implementation of confidence-building measures.(87). Another major step which can take India and Pakistan towards nuclear risk reduction and confidence building would be a bilateral agreement what can be termed as a posture of "paused deployment". (88) By a Paused Deployment Posture(PDP), it may mean deliberate, mutually verifiable built-in-delay of about a day in the arming of delivery vehicles with nuclear weapons, agreed upon by both countries. Sometimes, called 'de-alert', delay could be by a full day or more or just few hours and by precluding instantaneous deployment, it will greatly diminish the probability of hasty, emotionally driven or accidental use of nuclear arms and provide much needed breathing space to respective decision makers on both sides for finding ways and means at diffusing an impending crisis.

## **Nature of CBMs in South Asia**

### **(a) Military CBMs:**

Between India and Pakistan, at the military level, several CBMs have been initiated with varying scopes and limitations. Here are some of these military CBMs.

#### **Communication measures: Military Hotlines**

Following the 1971 war between India and Pakistan, a secured communication link, or “hotline,” between the Pakistani and Indian directors general of military operations (DGMOs) was established. In December 1990, India and Pakistan agreed to reestablish the DGMO hotline and to use it on a weekly basis, if only to exchange routine information. At the February 1999 Lahore Summit, India and Pakistan agreed to review all existing communication links with a view to upgrade and approve the DGMO and other hotlines.

#### **Hotline between Prime Ministers**

The first hotline was installed in 1989 by Prime Ministers Benazir Bhutto and Rajiv Gandhi of Pakistan and India respectively. Since then, Hot Lines has been in disuse for the most part. The June 19-20, 2004 foreign secretaries level meeting in New Delhi, however, has provided some hopeful sign in this regard as per its revival.

#### **Declarations on Non-Use of Force, Bilateral Resolution of Differences**

The 1966 Tashkent Declaration facilitated by the Soviet Union, formally concluded the 1965 Indo-Pak war. It stipulated that relations between India and Pakistan shall be based on the principle of non-interference in the internal affairs of the other. The 1972 Simla Accord followed the 1971 Indo-Pak war which obliges both countries to renounce the

use of force as a means of settling outstanding disputes between the two countries. In addition, both sides agreed to resolve their disputes in bilateral forum only.

#### **Notification Measures: Military Exercises**

An Agreement of Prior Notification of Military Exercises was completed in April 1991.

Notification is required for exercises comprising two or more divisions in specified locations.

#### **Non-intrusion of Air Space**

An Agreement on the Prevention of the Violation of the Air Space was signed in April 1991, and entered into force in August 1992. It stipulates that combat fixed-wing aircraft are not to fly within ten kilometers of foreign airspace.

#### **Transparency Measures**

Pakistan invited observers to watch major military exercises (*Zarb-e-Momin*) in 1989 while India in 1990 in order to diffuse tension arising from a major 1990 military exercise, invited US observers to monitor troop and equipment deployment as an assurance of non-hostile intent.

#### **Constraint Measures: Non-Attack of Nuclear Facilities**

An Agreement on the Non-Attack of Nuclear Facilities was signed by Indian Prime Minister Rajiv Gandhi and Pakistani Prime Minister Benazir Bhutto in December 1988. It was ratified by both countries and implemented in January 1992. The agreement requires an annual exchange of lists detailing the location of all nuclear-related facilities in each country. The measure further pledges both sides not to attack listed facilities.

### **Bilateral Accord on Chemical Weapons**

A Joint Declaration on the Prohibition of Chemical Weapons was concluded in August 1992. Both countries agreed not to develop, produce, acquire, or use chemical weapons.

### **Non-Military CBMs at Track-II Levels:**

As in the case of military CBMs, non-military CBMs at Track-II , non-governmental levels among interested individuals and informed citizens are also germane in diffusing tension between the two adversaries, India and Pakistan.

Non-military CBMs cover areas such as the following. (89)

- Collaboration in science and technology
- Dialogue on art and culture including reciprocal visits by Bollywood/Lollywood stars and other entertainment artists
- Free movement of People and ideas ( easing of visa restrictions for the nationals of adversarial countries)
- Exchange of information, views and analyses, i.e. newspapers, books, magazines
- Commerce and trade such as having a Free Trade Agreement, Granting Most Favored Nations status, Evolving a common currency, etc
- Strengthening democracy

### **Goodwill Measures**

Although termed as short term by analysts and observers, both India and Pakistan since their independence in 1947, have embarked on number of peace making steps as good will measures.(90) These measures adopted by the two countries exist in the form of:

- Transfer of official assets (1948)
- Prevention of an even larger exodus of refugees (1948)



- Protection of rights of minorities (1950)
- Maintenance of places of worship (1953,1955)
- Resolution of some lingering territories claim (1958,1959, 1960, and 1963)
- Indus Water Treaty (1960)
- Tashkent Agreement (1966)
- Agreement relating to the Rann of Kutch dispute (1968)
- Some provisions in the Simla Agreement (1972)
- Joint Commission agreement signed in March 1983 to cooperate in areas other than military and political matters.

Some of the more contemporary CBMs initiated and undertaken by India and Pakistan in the non-military arena are the following.(91)

1. Various military goodwill measures (1993).

i) Participation of senior military and civilian officials in various seminars in each other's country (1993).

ii) Inviting Guest Speakers at each other's national defence colleges.

iii) Participation and visits of various sports teams particularly Cricket and Hockey (which received a set back when BJP, the ruling government in New Delhi decided to disallow sporting contact but it has now been allowed in late 2003).

2. Visits of Parliamentarians.

3. Visits of businessmen.

4. In May 1984 and followed by another meeting of Indo-Pakistan Joint Commission held in July 1989, decisions were made to promote tourism, easing visa difficulties.

### **Paradoxes in pursuing the CBM Modality.**

Proceeding further, three unresolved paradoxes can be identified in South Asian region concerning the applicability and viability of CBMs. These steps have relevance for other conflict-prone regions in other parts of the world as well.

- First, CBMs admittedly " provide the atmospherics for improving inter-State relations, and providing the instrumentality to proceed further with an arms control and disarmament process"(92) They can establish trust between adversarial states; but the paradox remains that trust is required before CBMs can be negotiated. The need for some limited confidence between adversarial states is therefore essential before CBMs can be negotiated.
- Second, CBMs are difficult to establish, but easy to disrupt and abandon. Continued adherence to them requires adversarial states to perceive the balance of advantage to lie in not abrogating them, particularly during periods of deep crises. Experience reveals, on the contrary, that the hotline established between the Directors General of Military Operations became non-functional during the Indo-Pak war of 1971 due to telephones being either left unattended or manned by junior officers with no real authority. In addition, during the Brasstacks crisis (1987), "...information shared through the hotline was deemed unreliable because of mutual suspicions; hence, information supplied on Pakistani request was only minimally complied with".(93) Obviously, hotlines can only be relevant in crises if trust is evident on both sides. They are known to work satisfactorily in times of

peace. Hence the paradox that states may abide by CBMs in normal times, but ignore them in emergency situations.

- Third, public declarations can serve as useful CBMs to alleviate tensions and promote stability; they "can take the form of joint summit statements, negotiated agreements of a declaratory nature--such as non-attack pledges--and/or unilateral statements".(94) The historical record shows that national leaders in India and Pakistan routinely make conciliatory statements, but they are meant either for domestic consumption or to impress international audiences or lower the other's guard. The paradox then emerges: "Rather than promote security and confidence building, such declarations have often exacerbated existing regional tensions."(95)

### **Concluding Observations**

It may be that the real choice before the international community is not to treat India and Pakistan's nuclear tests as an isolated regional problem but rather to commence serious negotiations to draft a treaty for limiting nuclear warheads at its absolute minimum level within a set time. It will be counterproductive if the international community resorts to unilateralism such as the plans made by the current US president George W. Bush with the National Missile Defense program and selective morality on the part of Big Five nuclear weapon states in maintaining the existing status quo of nuclear powers prior to India and Pakistan's explosion and not work towards a genuine nuclear arms control agreement. Although US and Russian leaders have shown willingness to drastically cut

their nuclear arsenals to a historic 2,000 warhead, START III is yet to pick up the right momentum. According to Ashley J. Tellis, a Rand corporation analyst, "Several critical impediments are still there in the arena of global nuclear reform, despite all the other beneficial developments that have occurred on the aftermath of the Cold War. For example, neither Russia nor the small nuclear powers, the United Kingdom and France, appear willing to contemplate reductions in nuclear capabilities as part of some larger process that will eventually culminate in nuclear abolition. Even US has demurred about carrying nuclear arms reduction to its logical terminus, preferring instead to pursue a "lead and hedge" policy well into the future."(96)

In this context, India's views for a genuine nuclear reduction sounds credible and plausible. "Indian government called all nuclear weapon states to join with it in opening early negotiations for a nuclear weapons convention so that these weapons can be dealt with in a global, non-discriminatory framework as other weapon of mass destruction have been -- dealt with in the past. While it appears self serving, coming as it did on the heels of the 1998 nuclear tests, it is certainly consistent with India's past proposals and represented a continuation of traditional Indian policy which has always held out the threat of overt nuclearization so long as the global nuclear order remained unreformed."(97) What should be the best strategy and policy option for India to maximise its national interests. According to S.D.Muni, "a strategy of forging differential and issue-based coalitions with the major concerned players in Asia is the best option for India to deal with the unfolding strategic reality in Asia at present."(98). Air Commodore Jasjit Singh complements that view by saying, "India's strategic interests

would be served better through sustaining a non-hegemonic polycentric world which leaves it with greater flexibility to pursue its national interest."(99) From India's perspective, "reconstructing and redefining the confines of its national interest beyond its militaristic focus (in order) to make it meet the sustainable well-being of humans in economic, cultural, and political terms..... may help to settle tensions between the realist and the anti-nuclear groups within India's domestic politics and subsequently to reconfigure India's national interest in terms of a broader regional security agenda." (100)

Perhaps that day is not far off when all the nuclear weapon states can sit together and work towards a genuine new world order based on a reasonable nuclear arms reduction package in commensurate with the defined national interests of individual nation states.

-----End-----

**Appendix:****Preamble**

**1.1** The use of nuclear weapons in particular as well as other weapons of mass destruction constitutes the gravest threat to humanity and to peace and stability in the international system. Unlike the other two categories of weapons of mass destruction, biological and chemical weapons which have been outlawed by international treaties, nuclear weapons remain instruments for national and collective security, the possession of which on a selective basis has been sought to be legitimized through permanent extension of the nuclear Non-Proliferation Treaty in May 1995. Nuclear weapon states have asserted that they will continue to rely on nuclear weapons, with some of them adopting policies to use them even in a non-nuclear context. These developments amount to virtual abandonment of nuclear disarmament. This is a serious setback to the struggle of the international community to abolish weapons of mass destruction.

**1.2** India's primary objective is to achieve economic, political, social, scientific and technological development within a peaceful and democratic framework. This requires an environment of durable peace and insurance against potential risks to peace and stability. It will be India's endeavor to proceed towards this overall objective in cooperation with the global democratic trends and to play a constructive role in advancing the international system toward a just, peaceful and equitable order.

**1.3** Autonomy of decision making in the developmental process and in strategic matters is an inalienable democratic right of the Indian people. India will strenuously guard this right in a world where nuclear weapons for a select few are sought to be legitimized for an indefinite future, and where there is growing complexity and frequency in the use of force for political purposes.

**1.4** India's security is an integral component of its development process. India continuously aims at promoting an ever-expanding area of peace and stability around it so that development priorities can be pursued without disruption.

**1.5** However, the very existence of offensive doctrines pertaining to the first use of nuclear weapons and the insistence of some nuclear weapon states on the legitimacy of their use even against non-nuclear weapon countries constitute a threat to peace, stability and sovereignty of states.

**1.6** This document outlines the broad principles for the development, deployment and employment of India's nuclear forces. Details of policy and strategy concerning force structures, deployment and employment of nuclear forces will flow from this framework and will be laid down separately and kept under constant review.

## **Objectives**

**2.1** In the absence of global nuclear disarmament India's strategic interests require effective, credible nuclear deterrence and adequate retaliatory capability should deterrence fail. This is consistent with the United Nations Charter, which sanctions the right of self-defense.

**2.2** The requirements of deterrence should be carefully weighed in the design of Indian nuclear forces and in the strategy to provide for a level of capability consistent with maximum credibility, survivability, effectiveness, safety and security.

**2.3** India shall pursue a doctrine of credible minimum nuclear deterrence. In this policy of "retaliation only," the survivability of our arsenal is critical. This is a dynamic concept related to the strategic environment, technological imperatives and the needs of national security. The actual size, components, deployment and employment of nuclear forces will be decided in the light of these factors. India's peacetime posture aims at convincing any potential aggressor that:

**a.** any threat of use of nuclear weapons against India shall involve measures to counter the threat; and

**b.** any nuclear attack on India and its forces shall result in punitive retaliation with nuclear weapons to inflict damage unacceptable to the aggressor.

**2.4** The fundamental purpose of Indian nuclear weapons is to deter the use and threat of use of nuclear weapons by any state or entity against India and its forces. India will not be the first to initiate a nuclear strike, but will respond with punitive retaliation should deterrence fail.

**2.5** India will not resort to the use or threat of use of nuclear weapons against states which do not possess nuclear weapons, or are not aligned with nuclear weapon powers.

**2.6** Deterrence requires that India maintain:

**a.** sufficient, survivable and operationally prepared nuclear forces.

**b.** a robust command and control system.

**c.** effective intelligence and early warning capabilities.



- d. comprehensive planning and training for operations in line with the strategy, and
- e. the will to employ nuclear forces and weapons.

**2.7** Highly effective conventional military capabilities shall be maintained to raise the threshold of outbreak both of conventional military conflict as well as that of threat or use of nuclear weapons.

### **Nuclear Forces**

**3.1** India's nuclear forces will be effective, enduring, diverse, flexible, and responsive to the requirements in accordance with the concept of credible minimum deterrence. These forces will be based on a triad of aircraft, mobile land-based missiles and sea-based assets in keeping with the objectives outlined above. Survivability of the forces will be enhanced by a combination of multiple redundant systems, mobility, dispersion and deception.

**3.2** The doctrine envisages assured capability to shift from peacetime deployment to fully employable forces in the shortest possible time, and the ability to retaliate effectively even in a case of significant degradation by hostile strikes.

### **Credibility and Survivability**

The following principles are central to India's nuclear deterrent:

**4.1** *Credibility*: Any adversary must know that India can and will retaliate with sufficient nuclear weapons to inflict destruction and punishment that the aggressor will find unacceptable if nuclear weapons are used against India and its forces.

**4.2** *Effectiveness*: the efficacy of India's nuclear deterrent be maximized through synergy among all elements involving reliability, timeliness, accuracy and weight of the attack.

#### **4.3Survivability:**

- i. India's nuclear forces and their command and control shall be organized for very high survivability against surprise attacks and for rapid punitive response. They shall be designed and deployed to ensure survival against a first strike and to endure repetitive attrition attempts with adequate retaliatory capabilities for a punishing strike, which would be unacceptable to the aggressor.
- ii. Procedures for the continuity of nuclear command and control shall ensure a continuing capability to effectively employ nuclear weapons.

#### **Command and Control**

**5.1** Nuclear weapons shall be tightly controlled and released for use at the highest political level. The authority to release nuclear weapons for use resides in the person of the Prime Minister of India, or his designated successor(s).

**5.2** An effective and survivable command and control system with requisite flexibility and responsiveness shall be in place. An integrated operational plan, or a series of sequential plans, predicated on strategic objectives and a targeting policy shall form part of the system.

**5.3** For effective employment, the unity of command and control of nuclear forces including dual capable delivery systems shall be ensured.

**5.4** The survivability of the nuclear arsenal and effective command, control, communications, computing, intelligence and information (C412) systems shall be assured.

**5.5** The Indian defense forces shall be in a position to execute operations in an NBC environment with minimal degradation.

**5.6** Space based and other assets shall be created to provide early warning, communications, damage/detonation assessment.

### **Security and Safety**

**6.1 Security:** Extraordinary precautions shall be taken to ensure that nuclear weapons, their manufacture, transportation and storage are fully guarded against possible theft, loss, sabotage, damage or unauthorized access or use.

**6.2 Safety** is an absolute requirement and tamper-proof procedure and systems shall be instituted to ensure that unauthorized or inadvertent activation/use of nuclear weapons does not take place and risks of accident are avoided.

**6.3 Disaster Control:** India shall develop an appropriate disaster control system capable of handling the unique requirements of potential incidents involving nuclear weapons and materials.

### **Research and Development**

**7.1** India should step up efforts in research and development to keep up with technological advances in this field.

**7.2** While India is committed to maintain the deployment of a deterrent which is both minimum and credible, it will not accept any restraints on building its R&D capability.

### **Disarmament and Arms Control**

**8.1** Global, verifiable and non-discriminatory nuclear disarmament is a national security objective. India shall continue its efforts to achieve the goal of a nuclear weapon-free world at an early date.

**8.2** Since no-first use of nuclear weapons is India's basic commitment, every effort shall be made to persuade other states possessing nuclear weapons to join an international treaty banning first use.

**8.3** Having provided unqualified negative security assurances, India shall work for internationally binding unconditional negative security assurances by nuclear weapon states to non-nuclear weapon states.

**8.4** Nuclear arms control measures shall be sought as part of national security policy to reduce potential threats and to protect our own capability and its effectiveness.

**8.5** In view of the very high destructive potential of nuclear weapons, appropriate nuclear risk reduction and confidence building measures shall be sought, negotiated and instituted

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