India-Pakistan: Nuclear Stability and Diplomacy

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Abstract

The conceptual discourse, contributed to in the main by Western scholars, on the security and strategic stability of new nuclear weapon states like India and Pakistan seems alarmist. In reality, however, India and Pakistan have been mutually deliberating on various aspects of nuclear confidence-building measures (CBMs). This article is an effort to identify the issues of nuclear security concerns in two spheres – academic and policy formulations. The emphasis is more on the nuclear thinking of the two countries and the diplomatic challenges ahead particularly on the nuclear CBMs.

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Nuclear South Asia is a reality today. As soon as India and Pakistan conducted their nuclear weapon tests in May 1998, the debate – predominantly outside the Indian subcontinent – over nuclear security and stability assumed significant momentum. Many critics have questioned the rationale behind India and Pakistan possessing nuclear weapons. The strategic factors, especially those related to the nuclear-deterrence concepts, are being reviewed in the context of new nuclear weapon states by many diplomats, academics and strategic planners all over the world. With the passage of time, on their part, both India and Pakistan have also been long deliberating on the security compulsions behind the development and possession of nuclear weapons at various international platforms. They are also trying, in their own ways, to cope with the international disarmament discourse dominated by the P-5 states who have refused to accord India and Pakistan de *jure* status in the elite nuclear club. At the same time, acknowledging the fact that nuclear weapons remain significant to strategic stability between the two countries, both India and Pakistan have been trying to evolve mechanisms for ensuring the long-term nuclear security of the region. Various nuclear confidence-building measures (CBMs) are being mutually discussed by the two nuclear neighbours with increasing determination.

This paper seeks to highlight the issues emerging out of available academic and policy debates concerning the security and stability of nuclear South Asia. Accordingly, it is an effort to broaden the understanding of the challenges before India-Pakistan nuclear diplomacy. The paper is divided into four parts. In the first part, an attempt has been made to understand the Western perceptions on India and Pakistan as states with nuclear weapons. The issues related to the risk of possible (pre-meditated, inadvertent or accidental) use of nuclear weapons in South Asia have also been identified within the conceptual elaborations. Part two includes a review of some key policy recommendations by US-based think-tanks. The third section reviews the nuclear postures of India and Pakistan, while the fourth provides an account of the initiatives taken by India and Pakistan towards nuclear confidence-building.

India and Pakistan as States with Nuclear Weapons: A Theoretical Perspective

Maintaining its commitment to work towards global nuclear disarmament, India believes: "The end of the Cold War had provided the opportunity to reduce the salience of nuclear weapons but we saw instead that most of the world acquiesced in the manoeuvres to perpetuate forever the right of a handful of nations to retain their arsenals. ... The search for unilateral advantage has led to measures that undermine the principle of irreversibility of committed reductions. There is no move towards collective renouncing of 'first-use'. Instead there are prospects of advocacy of pre-emptive use and a move towards developing new types of arsenals justified by new rationale."

Nuclear weapons have been a central element of the security discourse among American and Western scholars and policy-makers since the beginning of the Cold War. Possession of nuclear weapons by a state beyond the P-5 club is commonly described in Western academic and strategic communities interchangeably as 'spread' or 'proliferation' of nuclear weapons and they call it 'new nuclear weapon state'. By the end of the Cold War, in the course of the last five decades, a complex theology has evolved about the extent to which nuclear deterrence preserves or endangers world peace and security. Despite lacking universal acceptance at policy-making levels, "the debate over nuclear proliferation" in the Western world is instructive for its multiple intellectual inputs.

However, there appear two significant limitations in the prevailing debate. First, a lack of universal appeal is apparent in the inherent criticism by each group of scholars. They differ mainly over mutually contested assumptions and applications of each theory. Second, academic formulations on non-proliferation do not adequately advance the comprehensive nuclear disarmament approach. They fail to acknowledge the existing discriminating non-proliferation regimes. Instead, by and large while discussing 'deterrence' in the context of 'new nuclear weapons states', most of the academic writing legitimises the nuclear weapons of P-5 states and remain suspicious of the rationale of others. And, "there is little in the literature to tell us how a country should plan to use its nuclear weapons to deter its adversaries while denying the possession of these weapons."³

There are two main streams of theorisation on nuclear proliferation, namely, Optimist and Pessimist. One more competing theory is also found in the writings of international relations – Political Relativist. Some prominent Realist scholars, classified under 'Proliferation Optimists'⁴, have argued that there is virtually no risk that nuclear weapons will actually be used if more countries obtain them. They believe that proliferation would result in lesser number of wars and greater peace and stability. A few of them (Optimist scholars) believe that except from a slight rise in the probability of nuclear accidents, the increased deterrent effects of nuclear proliferation lower the likelihood of war among nuclear-armed states.⁵ Rooted in the assumption that states behave in a self-interested and rational manner, the pioneer among Proliferation Optimists, Kenneth Waltz, argues: "More May be Better"⁶. He suggests the following six assumptions to prove his argument:

- International politics is a self-help system.
- Balance of terror is indestructible.
- 'Uncertainty' about controlling escalation is at the heart of deterrence
- Deterrence provides a guarantee against accidents.
- Nuclear weaponry makes miscalculation difficult due to greater awareness of possible damage and sensitivity to the cost of war.
- New nuclear states will feel the constraints of old nuclear states (meaning new nuclear states will learn lessons from the maintenance of deterrence during the Cold War).

Related to the issue of nuclear weapons and regional stability, however, for the states sharing common borders, Waltz says: "Where states are bitter enemies one may fear that they will be unable to resist using their nuclear weapons against each other. This is a worry about the future that the past does not disclose." But, he indicates that nuclear weapons caused China and Soviet Union to deal cautiously.

Political relativists, who give primacy to the character (political structures, ideology, culture, system of governance, etc.) of the possessor state over the technicalities involved in the existence of arsenals, challenge the optimistic view. Political relativism is an approach that stresses more on the internal structure of states, rather than the international political environment in which the states act. Political relativists believe that deterrence can fail when required the most, and that nuclear weapons are not secure in the hands of "bad states". Criticising the rationality factor in Waltz's argument, Robert Jervis, one of the 'political relativists' argues: "Proliferation among strongly dissatisfied countries would not necessarily recapitulate the Soviet-American patterns of stability." While suggesting that mere possibility of nuclear use causes extreme caution all around the world, Waltz believes that preventive attacks are more unlikely to take place. Instead of creating large arsenals, based on the Cold War experience, for better survivability, Kenneth Waltz says: "Though large and complex nuclear arsenals are hard to control, the relatively small and simple forces of new nuclear states are not."

In contrast to Proliferation Optimists, the Pessimists believe that the spread of nuclear weapons to other states beyond P-5 will make the world more dangerous. Opposite to Waltz's theory of 'More May Be Better', Scott D. Sagan, also known as a 'conditional pessimist' believes that 'More Will Be Worse.' Against Waltz's rational theory, pessimistic assessments of Sagan are based on the organisation theory. The organisation theory implies that whereas the government (civilian) leaders may behave rationally, the final implementation of policy decisions is influenced by powerful groups/forces within the country. Since the military organisation of any country is finally responsible for operational requirements of nuclear weapons, Sagan assumes that it determines the behaviour of the state. He argues: "professional military organisations – because of common biases, inflexible routines, and parochial interests – display organisational behaviours that are likely to lead to deterrence failures and deliberate or accidental war."

While elaborating on how the United States and the former Soviet Union faced difficulties in handling issues like deterrence, deployment, safety and security of nuclear weapons, Sagan raises doubts as to how the new nuclear weapon states will follow the necessary precautions to avoid escalation, preventive wars or accidental hazards. Sagan in his thesis 'More Will Be Worse' provides the following pessimistic assumptions:

• Spread of nuclear weapons to new states will make the world more

- dangerous. Deterrence failures are more likely in the new nuclear states;
- Military biases can lead to larger arsenals but not necessarily more survivable weapons;
- Opaque (covert) nature of nuclear proliferation exacerbates nuclear weapons safety problems;
- Poorly designed operating procedures can undermine survivable nuclear forces;
- Lack of organisational and financial resources can result in inadequate mechanical safety devices;
- Accident-prone nuclear operations will be more prevalent in states with volatile civil-military relations;
- The most worrisome case in point is Pakistan;
- Efforts should be made to assist the new nuclear states in making their nuclear forces safe, secure and survivable.

Describing the nature of the nuclear problem in South Asia, Sagan argues that the greater danger is the risk of nuclear war arising through deliberate escalation of a conventional war started over Kashmir. And, in addition, there is the risk of an accidental nuclear war, caused by a nuclear weapons accident, i.e., the unauthorised use of a nuclear weapon, or a false warning of an attack.¹⁴

Among the Pessimists, the Abolitionists hold the view that all nuclear powers should dismantle their nuclear arsenals and put their stockpiles of military and civilian fissile materials under the control of an international agency. Developing the argument that the United Nations would not indulge in nuclear weapons production, others have proposed an operational nuclear force or static nuclear stockpile under the command of an international body like UN. And some, who believe that wisdom derived from the revulsion of war lies only with European and the North American societies, hold the notion that the possible use of nuclear weapons exists only in other parts of the world. They believe that "weapons of mass destruction could yet become a turning point, indeed a final point, of human history in a catastrophe beyond imagination."

Both Waltz and Sagan have provided a persuasive framework to academics in terms of policy-making of states. The policy prescriptions reflect on the responsibility of states, which nuclear weapon states may acquire, by virtue of possessing such arsenals. However, no analysis can be said to be complete because of their selective interpretation of facts and events. Each has interpreted the events

of the Cold War period to justify an individual theoretical formulation: "The strategic arms race after both the United States and the Soviet Union secured second-strike capabilities is a mystery to nuclear optimists." Sagan's theoretical emphasis is pointed more towards weapons seekers (so-called nuclear proliferation) and is less critical about the lack of disarmament efforts.

Peter R. Lavoy has brought out 12 specific concerns about nuclear proliferation:¹⁹

- Incomplete nuclear weapons systems invite preventive military attack;
- Vulnerable nuclear forces invite pre-emptive military attack;
- Primitive command and control raises the risk of nuclear accidents;
- Unstable command and control risks the loss of control over nuclear forces, raising the possibility of unauthorised nuclear use or nuclear terrorism;
- Nuclear arms racing is inevitable and raises the risk of war;
- Nuclear proliferation could increase the likelihood of conventional military conflict;
- Conventional conflict could escalate to nuclear war;
- Nuclear forces might be used for coercion and aggression;
- New nuclear states might assist proliferation elsewhere;
- Successful nuclear proliferation could induce further nuclear proliferation;
- Nuclear proliferation raises the risk of cataclysmic nuclear war; and,
- New nuclear states could limit the political and military influence of major powers.

A preventive strike refers to an attack on the adversary to forestall acquisition of nuclear weapons facilities, implying waging a war before the adversary acquires weapons capability. Israel's attack that destroyed the Osirak reactor in Iraq in 1981 can be cited as an example of such preventive strike. The possibility of preventive military strikes has little or no relevance for India and Pakistan after both nations signed an agreement in 1988 on the 'Prohibition of Attack against Nuclear Installations and Facilities' of each other.

Pre-emption includes military action when an attack by an adversary is imminent. This attack may include targeting of the opponent's strategic arsenals or decapitate its command channels to prevent the adversary from launching a retaliatory strike. India and Pakistan have already established nuclear command authorities. However, due to lack of adequate information currently available in

the public domain, there remains some scope for analysts outside the official establishment to debate on the operational issues of command and control and communications. ²⁰ The willingness shown by both India and Pakistan towards nuclear confidence-building is indicative of their concern for mutual understanding to minimise threats that go with possession of nuclear weapons.

The possibility of conventional conflict escalating to the level of nuclear exchange may remain a concern for all till Pakistan comes out with a declaratory 'nuclear doctrine'. India is already committed to no-first-use (NFU) in its defined nuclear doctrine. It could be a point of discussion among strategic analysts as to why India and Pakistan would not follow the Cold War-like deterrence postures and why one should not worry that India and Pakistan too would refrain from using nuclear weapons. Both India and Pakistan have adequately expressed in respective threat concerns that impelled them to go for the nuclear choice. Pakistan's security formulations are India-centric, whereas India has a more comprehensive national security outlook that is not country specific. ²¹ Yet, in a significant assertion both the countries have recognised "that the nuclear capabilities of each other, which are based on their national security imperatives, constitute a factor for stability."²²

The history of the development of nuclear weapons is linked with MAD – i.e., mutually assured destruction, a concept evolved during the Cold War. According to the MAD concept, the use of nuclear weapons by one against the other is apprehended in final destruction of both the attacker and the defender. The inducement aspect of proliferation, that successful nuclear proliferation could induce further nuclear proliferation, as averred by Western scholars, may be placed within the larger debate in answering two pertinent queries. First, why does a country seek nuclear weapon capability? And second, why is it so difficult to relinquish possession of nuclear weapons? Answers to these two questions remain contested in the light of progress towards global nuclear disarmament.

The Nuclear Non-Proliferation Treaty (NPT) includes a provision under Article VI: "Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control." This provision however does not provide any time frame for achieving the disarmament objective. At the same time, P-5 states also lack any serious commitment towards making the world free from nuclear weapons. The US abrogation of the 1972 Anti-Ballistic Missile Treaty (ABM), its pursuit for National Missile Defense and Nuclear Posture Review, none of these indicate reduction in stock of missiles and elimination of nuclear

weapons in the near future. Potential US nuclear policy strategies seem to be at odds with its commitment to the NPT.

The new "Nuclear Posture Review" of December 2004 of the US Department of Defense envisages establishment of a 'New Triad' of defence including – offensive strike system (both nuclear and non-nuclear), defences (both active and passive) and a revitalised defence infrastructure. Russia still holds a huge stockpile of nuclear weapons. China's drive for modernising its force capabilities may seriously undermine its role in nuclear disarmament. Like China, the United Kingdom and France have shown little interest in joining any international arms reduction dialogue. Whether the new nuclear states can limit the political and military influence of the major powers is an issue that has not yet been tested in the international security environment.

Ever since the two countries conducted nuclear tests in May 1998, India and Pakistan are being seen in the Western world as two potential users of nuclear weapons in any war-like situation. From the geo-political perspective, India is located between two-front nuclear capable states – China and Pakistan. Such a two-front security challenge did not concern the two Superpowers in the Cold War.²³ But do the debates over nuclear weapon states and associated concerns for stability address the comprehensive security realities in the region? Most literature on nuclear proliferation draws ideas from the Cold War experience. It either describes the protracted nuclear peace in the past or shows concern about a scary nuclear future. Western theorists have largely tested the assumptions against Cold War binary oppositions like the Warsaw Pact and the North Atlantic Treaty Organisation (NATO), balance of terror or mutual assured destruction and an uneasy peace. Except the underlying disquiet about possible unauthorised use of nuclear weapons or accidental hazards, that are partially valid for any nuclear weapon state, most of the theoretical prescriptions are overstated in terms of 'new nuclear weapon states'.

Since the beginning of the 1990s, India and Pakistan have shown interest in bilateral diplomatic communication to build upon the momentum of mutual concern for evolving a framework of mutual confidence and nuclear and missile threat reduction between the two nuclear weapon states. Relevant to the discussion on nuclear stability and security in South Asia, let us examine how reputed think-tanks view the future of nuclear peace and stability in South Asia.

Case Studies on Nuclear Threat Reduction in South Asia

The Carnegie Endowment for International Peace (CEIP) published a draft report, 'Universal Compliance: A Strategy for Nuclear Security', ²⁴ in June 2004. The report proposes a strategic blueprint for US leadership to rethink international nuclear non-proliferation and global nuclear security. In this report, the recommended measures for nuclear risk reduction between India and Pakistan include:

- Establishment of national risk reduction centres in both countries to administer agreed upon confidence-building measures.
- A commitment not to develop, produce, and use 'tactical' nuclear weapons.
- Agreement not to flight-test missiles in the direction of the other country.
- Agreement to flight-test missiles only from designated test ranges.
- Provision of advance notification of the movement of missiles for training purposes.

The Henry L. Stimson Center's report, 'Reducing Nuclear Dangers in South Asia', ²⁵ argues that: "The stability-instability paradox that was formulated in the West to characterise the dangers of nuclear deterrence is alive and well in South Asia. This paradox holds that, while offsetting nuclear capabilities might indeed prevent a full-blown conventional or nuclear war, the presence of these fearsome weapons could also encourage the use of violence at lower levels in the expectation that escalation would be contained by a mutual desire to avoid the nuclear threshold." And that, "Kashmir has been inflamed since the advent of covert nuclear capabilities on the subcontinent, and tensions have grown even more pronounced with the demonstration of overt nuclear capabilities in 1998. The region is now experiencing crises with greater frequency and severity."

The report includes extensive deliberations during two workshops, November 14-18, 2002, and May 20-23, 2003, with participants from the US, India and Pakistan, convened by the Stimson Center to discuss escalation control and scenarios that could lead to crossing of the nuclear threshold. It provides the following 'doable' steps in the near term:

- Establishment of national risk reduction centres to serve as focal points for the administration of confidence-building measures.
- Missile-related measures to formalise and properly implement the agreement concerning prior notification of missile launches; to formalise

and extend the time-line for such notifications; to forego missile flight tests in the direction of the other country; to flight test missiles only from designated test ranges; and to provide advance notification of the movement of missiles for training purposes.

- Clarifying terminology or developing common terminology on nuclearrelated programmes, deployment, and doctrine could reduce misunderstanding and increase crisis stability.
- Leadership declarations affirming responsible nuclear stewardship could help defuse nuclear dangers and facilitate an improvement in bilateral relations.
- Increased awareness of nuclear dangers, particularly with regard to the possible acquisition of nuclear materials by terrorist groups, would be advisable.

In the Stimson Center's report, the proposals collected in the workshops on escalation control are grouped in five categories: improving bilateral relations; nuclear risk reduction and strategic restraint; safety and security measures; and, improving intelligence through communication.

Both the reports, by CEIP and the Stimson Center, have this presumption that 'deterrence' may not work between India and Pakistan as similar to the Cold War experience. Such assumptions are not completely invalid for the two countries did resort to nuclear rhetoric during the 1999 Kargil conflict and indulged in 'nuclear signalling' during the period of crisis in 2001-2. In addition, the absence of a doctrine without no-first-use policy and repeated calls from the Pakistani side to lower the threshold could have a certain bearing on the thinking of Western analysts. Already, the strategic debate had reached a slightly higher level than was normally prevalent in the subcontinent when the Indian Army Chief stated that a limited war with Pakistan is possible. Thereon, escalation control came into the purview of discussion in a more focused way.

For any future war in the subcontinent, the two most likely scenarios discussed in the Cooperative Monitoring Center Occasional Paper of Sandia National Laboratories, ²⁸ are: a breakdown along the common border in Kashmir, and failure of nuclear policy. The authors propose an alternative approach through which India and Pakistan can begin to cooperate in managing their common border to prevent a breakdown. The ultimate concern in the report about the existence of

nuclear weapons is the possibility of their use in a time of conflict.

The following are the enumerations in the Cooperative Monitoring Center Occasional Paper that focuses on the monitoring of nuclear safety, security, and stability:

- The ability to assess the current operational and deployment status of nuclear weapons is perhaps the most critical factor in near-term crisis prevention.
- Developing measures to prevent escalation.
- National decisions to include both technical and procedural mechanisms to restrict use of weapons and delivery systems will permit more time to attempt diplomatic solutions to conflict before initiating weapons use.
- Another element of nuclear stability is determining the readiness of launch systems. There may be a number of indicators associated with launcher alert status. These include: Flight parameters loaded, other software updates (if appropriate); Vehicle fuelled (missile or aircraft); Crews readied; Delivery vehicle in launch location (moved to launch point); Transporter system in ready position (e.g., transporter erector launcher [TEL] in raised launch position); Weapon armed. While most of these indicators of launch preparation are difficult to monitor, some, such as missile fuelling and launcher movements, might be monitored through electronic sensors.
- There is the possibility of use through miscalculation or misinterpretation.
- Sharing information on any of the concerns for safety, security or accident will require an infrastructure of capabilities and procedures. These include methods for providing timely, reliable, secure, accurate, and authenticated communications.
- Ensuring safety of nuclear weapons and materials will primarily be a state
 responsibility because of the highly classified nature of most safety issues.
 These issues involve detailed design, as well as material and handling details.
 An expanded mission for hotlines between the Directors-General of
 Military Operations and between the Heads of State might be established
 to address this critical issue.
 - Acknowledging the fact that only the Indian and Pakistani governments can decide whether and on what basis, to establish new risk reduction measures, the 'Working Group Report of the Center for Strategic and

International Studies (CSIS)²⁹ recommends the following steps for nuclear risk reduction:

- A new communications mechanism nuclear risk reduction centres (NRRCs) in India and Pakistan – should be established to complement existing bilateral channels.
- The main functions of the NRRCs would be to provide each party a dedicated, secure means of: (a) notifying the other side about activities or events on its territory that might be wrongly perceived or misinterpreted that could lead to conflict, (b) sharing information that the two countries are obliged to exchange under existing security agreements, and (c) seeking and receiving clarifications about ambiguous events on the other's territory. Other functions could include the conduct of joint exercises of certain NRRC notification procedures, technical back-up during crises, and support for consultations on the implementation of existing confidence-building measures (CBMs).
- Adequate infrastructure already exists in South Asia to support a wide range of secure communication options, including data, voice, video, or a combination of these. The approximate cost for a dedicated cable permitting teletype and voice communication would be US\$10,000-50,000 annually.
 For a dedicated satellite channel permitting teletype, voice, and video, the annual cost would be roughly US\$560,000.
- The centres would operate on a continuous, round-the-clock basis. Written
 messages using agreed formats would be the norm, although voice and
 video capability would also be desirable. It would be the prerogative of
 each government to decide where it would institutionally house its NRRC
 and to determine how its NRRC would relate to other government
 organisations. The Indian and Pakistani solutions to these questions need
 not be symmetrical.

The Working Group Report concluded, that "the circumstances in South Asia today are very different from the circumstances surrounding the current US-Russian relationship and the relationship that existed when the US-Soviet Centres were brought into being. To tailor a new communications mechanism to the needs of South Asia, the mechanism could appropriately take on a wider range of functions than the US and Russian Centres." ³⁰

Rodney W. Jones assumes that there lies intense political conflict over Kashmir and that the escalation in South Asia has the potential of becoming a nuclear war.

In one of the papers presented during the fourth nuclear stability roundtable during March 12-13, 2002, in Washington on 'Military Asymmetry and Instability in Emerging Nuclear States: India and Pakistan,'³¹ he suggests the following conditions of nuclear stability in the region:

- High nuclear threshold (strong conventional defence)
- Secure second strike capabilities (robust C4I)
- Rough parity in size and defence space
- Neither falling behind the other's first strike edge (good early warning?)

Supposing that "nuclear deterrence might provide the security that allows a general improvement in security relations" in South Asia, the UNIDR (United Nations Institute for Disarmament Research) research paper depicts various aspects of nuclear confidence-building measures between India and Pakistan. Commenting on the current conflict situation between the two countries, the authors of the paper subscribe to developing CBMs in connection with the 'central issue – Kashmir'. An interim suggestion is made to work on the possibilities of addressing the 'central sore – cross-border terror raids' from Pakistan.

With regard to nuclear CBMs, according to the UNIDR paper, India and Pakistan should share the development of respective nuclear doctrines and security concepts to have clarity over 'red lines'; develop mechanisms on notification of ballistic and cruise missile tests; create nuclear risk reduction centres with robust safety systems to deal with the issues of accidental or unauthorised use; and install a secure and dedicated line of communication including safe command and control systems between the national authorities (*the nature or constitution of national authority remains undefined*). The paper categorically puts the 'Kashmir issue' to be discussed as in the final stages of CBMs between the two countries.

The UNIDR study concludes that the two countries should seize the ripe moment (that has begun since the two countries agreed to peace talks during the sidelines of the SAARC summit in January 2004) in the context of possibility of conflict. "Any future terrorist incident might provoke India into punitive action, which in the worst case might lead to uncontrolled or accidental responses, all the way to a nuclear exchange. This suggests that, although the nuclear aspects will have to be part of the general discussions on security, it might also be worth considering whether they can be made separable, in case the moment passes too quickly."³³

The aspect of geographical proximity of the two countries is also discussed in

one of the reports dealing with nuclear threat reduction measures. Based on some hypothetical South Asian launch point-target combinations, the missile travel time between India and Pakistan is estimated between 8 to 13 minutes.³⁴ Taking account of the danger of false alarms and miscalculations,³⁵ the Pugwash Discussion Paper of 2002 suggests that a posture of De-alert (most basic measures would be to keep the weapons de-mated from delivery systems; use of locking devices), and installation of best available safety measures into the weapons, like use of Insensitive High Explosive (IHE) and fire-resistant pits would significantly reduce the risk of inadvertent or unauthorised use of weapons.

From the above discussed strategic policy recommendations, there emerge two sets of proposals that could draw attention of the diplomats and strategic planners of India and Pakistan. In the first set, one can identify mechanisms for escalation control and nuclear force management within each state. The second set includes possible measures of nuclear CBMs by the two countries to work towards long lasting stability in the region.

Issues Related to Escalation Control and Nuclear Force Management

- Leadership declarations affirming responsible nuclear stewardship (avoidance of shrill rhetoric).
- Developing strategies to avoid escalation of conventional confrontation to nuclear exchange level.
- Avoiding sensitive targets in the event of a conventional war.
- Raising the level of nuclear threshold (strong conventional defences).
- Securing second strike capabilities.
- Review of decision-making to develop, produce, and use 'tactical' nuclear weapons.
- Regular assessment of each other's current operational and deployment status of nuclear weapons (missile fuelling and launcher movements might be monitored through electronic sensors).
- Determining the readiness of launch systems.
- Improvements in intelligence to avoid miscalculation or misinterpretation.
- Acquisition of technology to help provide prompt and accurate information concerning missile launches and nuclear detonations.
- Advancement in respective command and control mechanisms including establishment of effective early warning systems.

- Refraining from giving pre-delegation of authority to use nuclear weapons.
- Effective physical safety of nuclear materials and installations.
- Ensuring safety and security of nuclear weapons and materials.

Steps Required for Nuclear CBMs

- Improving bilateral relationship.
- Sharing knowledge of decision-making processes.
- Agreement on advance notification of missile testing and movements.
- Flight test missiles only from designated test ranges.
- Provision of advance notification of the movement of missiles for training purposes.
- Review of policy decisions related to tactical nuclear weapons (including development, production, or use).
- Establishment of multi-layered, reliable, secure, accurate, and authenticated communication mechanisms.
- Establishment of Nuclear Risk Reduction Centres (NRRCs).

Most of the above-mentioned studies on South Asia suggest that problems related to Kashmir may be the spark to trigger a nuclear exchange between India and Pakistan. Linking of the Kashmir issue with Indo-Pak nuclear strategy is quite complex. In fact, such an assumption indirectly endorses (and is born out of) Pakistan's nuclear blackmailing. In reality, it is the Pakistani military that has crossed the Line of Control (LoC) in the past to provoke Indian defence. Pakistan does not adhere to no-first-use (NFU) and keeps making frequent calls to lower the nuclear threshold in the apprehension of India taking reprisal measures to stop Pakistan-sponsored terrorism in Indian territory.

Pakistan insists on Kashmir being the 'core' issue of stability/instability between India and Pakistan. India maintains that the scourge of 'terrorism' in South Asia has adverse implications for both regional and international security. In between the two exclusive views, remains a pertinent question unanswered — who is to guarantee that if the issues related to Kashmir remains resolved, towards which India has already been making significant efforts, Pakistan's military-ISI sponsored terrorist activities in other parts of India would end? In such a complex security environment, bilateral confidence-building measures alone would keep the escalation under manageable limits.

Pakistan's Nuclear Posture

Pakistan is considered to have as many as 50 nuclear weapons and enough highly enriched uranium (HEU) stock for 50 more, including the additional capacity to produce five to ten bombs a year. ³⁶ According to a more recent estimate, Pakistan is said to possess 55-90 weapons of highly enriched uranium and 20-60 plutonium bombs. ³⁷ No definitive information at official levels is available on such speculative assessments. The possible delivery systems for weapons are aircraft and missiles.

Pakistan President Pervez Musharraf has gone on record to say that the weapons are in a "disassembled state." Few other terms have also been used to project the deployment status of Pakistan's nuclear weapons such as "operationally deployed" or "in the component form." While the term component form has not been spelt out, it seems that "the situation in Pakistan may be murky and may in fact best be described as partial deployment." Replying to the question of an interviewer, "Can you say, are the nuclear weapons ready to go as they are, or are they, as I have heard, in different parts, have to be assembled first?", Musharraf said: "Yes, you are right. They are not mated (inaudible). And there is geographical - they are geographically apart. They cannot be - they are not ready to be fired. So really, it's not the concept that NATO has been having (inaudible) United States system, where your finger has to be on a button and then finally can be pushed. That's not the condition there."

As far as the doctrinal aspect is concerned, Pakistan has not announced any comprehensive doctrine document. However, two basic elements that emerge from statements by the country's leaders are: "a rejection of the NFU policy, and the role of nuclear weapons as minimum credible deterrent." Realising the gap between the military strength in conventional terms, there is a view prevalent in Pakistan that an NFU posture of Pakistan could provide India the leverage of conventional attack. In the backdrop of such military planning, by asking for a 'no-aggression-pact' Pakistan seems to preclude even an Indian reprisal for its misadventures like the one in Kargil in 1999 and support to cross-border terrorism against India. Also, another factor of security complications for India vis-à-vis Pakistan is that "country's chief patrons, principally the US and China, are bound to try and [set] right the inherent imbalance in power by assisting it in ways inimical to Indian interests." The implication for Pakistan being designated a 'major non-NATO ally' of the United States is being seen in India as more American military assistance to Pakistan.

Pakistan's Ambassador to United Nations has argued: "We have to rely on our own means to deter Indian aggression. We have that means and we will not neutralize it by any doctrine of no first use." And, in terms of ability to ensure survival, Pakistan wants to have sufficient number and types of assets to create 'reasonable doubt'.

Relevant to the current discussion is the bottom line for use of nuclear weapons by Pakistan. This has been spelt out by Gen. Khalid Kidwai, Head of Strategic Planning Division (SPD) under the National Command Authority (NCA), to a delegation of Italian Scientists. To quote him: "Nuclear weapons are aimed solely at India. In case that deterrence fails, they will be used if India attacks Pakistan and conquers a large part of its territory (space threshold); India destroys a large part either of its land or air force (military threshold); India proceeds to the economic strangling of Pakistan (economic strangling); or India pushes Pakistan into political destabilization or creates a large scale internal subversion in Pakistan (domestic destabilization)."⁴⁹ In other words, without defining any limits Pakistan intends to use its nuclear weapons to counter even a primarily conventional conflict situation if it feels threatened with military, political or economic defeat.

However, there is a feeling in Pakistan that a nuclear response cannot be involved to deal with local contingencies and the nuclear threshold should be maintained at a high level. ⁵⁰ A former foreign minister of Pakistan has opined that the destruction of even a single city would be an unacceptable risk for another country that contemplates a pre-emptive strike. ⁵¹ In an interview to CNN on June 1, 2002, Pakistani President Pervez Musharraf tried to allay the growing international fear of any nuclear war in the subcontinent by saying that, "I would even go to the extent of saying one shouldn't even be discussing these (nuclear war) things, because any sane individual cannot even think of going into this unconventional war, whatever the pressure." ⁵²

A few months earlier, while chairing the meeting of the NCA in October 2001, Pervez Musharraf reaffirmed the Pakistani strategic assets as the cornerstone of country's national security and that there will be no compromise on the nuclear programme. ⁵³ The statement had come in the light of increasing international concern about improving security and installing new safeguards on Pakistan's nuclear weapons after 9/11. Musharraf assured the world that the country's strategic capability was fully safeguarded. ⁵⁴

Such assertions need further examination, especially when Pakistan is considered as a potential source for terrorists to get access to technology and materials. ⁵⁵ A. Q. Khan's televised confessional statement in February 2004 of being involved in international nuclear black-marketing drew unprecedented media attention. However, "A.Q. Khan got off lightly, sending disturbing messages about US and Pakistani attitudes toward proliferation." ⁵⁶ And, "the most troubling question of all remains how and to what extent Pakistan's free-market approach to proliferation has allowed terrorist groups like Al Qaida to acquire nuclear materials and technology." ⁵⁷

India's Nuclear Posture

Judging by the official pronouncements in the wake of the May 1998 tests, India appears set for a pragmatic course of action, including three basic components -construction of minimum deterrent with a NFU policy, participation in a possible Fissile Material Cutoff Treaty (FMCT) negotiations and the pursuit of arms control rather than disarmament. 58 The Cabinet Committee on Security headed by the Prime Minister while approving the establishment of Nuclear Command Authority and 'alternate chains of command for retaliatory nuclear strikes in all eventualities', on January 4, 2003, summarised the nuclear doctrine as: (i) building and maintaining a credible minimum deterrent; (ii) a posture of NFU and nuclear weapons to be used only in retaliation against a nuclear attack on Indian territory or on Indian forces anywhere; (iii) nuclear retaliation to be massive and designed to inflict unacceptable damage; (iv) authorisation of retaliatory attack rests with the political leadership through the National Command Authority; (v) non-use of nuclear weapon against non-nuclear weapon states; (vi) in the event of a major attack against India, or Indian forces anywhere, by biological or chemical weapons, India will retain the option of retaliating with nuclear weapons; (vii) a continuance of strict control on export of nuclear and missile-related materials and technologies, participation in the Fissile Material Cutoff Treaty negotiations, and continued observance of the moratorium on nuclear tests; and (viii) continued commitment to the goal of a nuclear weapon-free world through global, verifiable and nondiscriminatory nuclear disarmament.⁵⁹

As early as in 1994, India had proposed that India and Pakistan should jointly undertake not to be the first to use their nuclear capability against each other. ⁶⁰ Even after conducting the nuclear tests India expressed its readiness "...to discuss a 'no-first-use' agreement with that country, as also with other countries bilaterally, or in a collective forum." ⁶¹ However, Gen. Musharraf thinks otherwise. Interviewed

on NBC television in Washington on January 23, 2002, General Musharraf was asked to explain Pakistan's reluctance to follow India in adopting a policy of no-first-use of nuclear weapons. He replied: "When you talk of no-first-use, Pakistan has been offering denuclearisation of South Asia...so we are going far, far beyond them. It is not an issue of no-first-use, but far beyond that... We want to denuclearise South Asia. We want to sign a No War Pact with them. Isn't that better? I think the world community should insist on that. Pakistan is offering a much bigger deal."

The Indian Prime Minister rejected Pakistan's suggestion for a mutual rollback of their nuclear programme as India's nuclear programme is not Pakistan-specific. ⁶³ In fact, "the rationale for Pakistan's nuclear weapons programme continuously harped on is that Pakistan has always been quantitatively and technologically weaker than India in military terms. India's counter-argument is that, in terms of the ratio between defence responsibilities and the size of the armed forces, especially in terms of territorial defence from external aggression, this argument is not valid." ⁶⁴

As early as in 1974, Pakistan submitted a resolution at the 29th session of the UN General Assembly, which sought to endorse in principle the concept of a nuclear weapon-free zone in South Asia. ⁶⁵ At that point of time, Pakistan was already running the nuclear weapon programme. It is worth remembering that then President Zulfikar Ali Bhutto had called a meeting of Pakistani scientists in Multan in January 1972 and had expressed his willingness to acquire nuclear weapon for Pakistan. But in the wake of India's May 1974 tests, Pakistan tried to gain an image of veiled peacemaker though lacking any sincerity.

India itself had proposed a resolution in the same 29th session of the General Assembly in which it recognised that, "in appropriate regions and by agreement among the states concerned, the creation of nuclear-weapon-free zones could promote the cause of general and complete disarmament under effective international control."⁶⁶ India also considered in that proposal that "the initiative for the creation of a nuclear-weapon-free zone in the appropriate region of Asia should come from the States of the region concerned, taking into account its special features and geographical extent."⁶⁷ In reality, South Asia could not be treated in isolation for the purpose of creating a nuclear weapon-free zone, as it is only a sub-region and an integral part of the Southern Asian region. Hence, it is necessary to take into account the security of the region in its entirety.

Unlike Pakistan, India's adherence to a NFU policy and its strategic assets are not country-specific. Therefore, any effort towards creating a minimum credible

nuclear triad, including qualitative improvement in missile systems or other technological advancements, seems related to India's national security perspectives beyond, but inclusive, of Pakistan. The Indian perspective is both global and regional in nature. India believes that: "As long as nuclear weapons exist, the threat of use of nuclear weapons, accidentally or inadvertently, will remain. Only global and complete nuclear disarmament, within a time-bound framework, can totally eliminate the danger of a nuclear war. This was the cornerstone of India's Action Plan for the elimination of nuclear weapons unveiled by late Prime Minister Rajiv Gandhi in 1988 at the Special Session of the General Assembly...While pursuing the goal of nuclear disarmament, it is desirable to take immediate steps for reducing nuclear danger. These could include measures to de-alert and de-target nuclear weapons, legally binding commitments on no-first-use of nuclear weapons and non-use of nuclear weapons against Non-Nuclear Weapon States." 68

India-Pakistan Nuclear CBMs

Recently, Indian External Affairs Minister Natwar Singh stated that: "A new dimension has been added since 1998 when both countries became nuclear powers. And now it is absolutely essential that we have best of relations. And the Manmohan Singh government has already made it clear that we look forward to continuing the process, we will take it forward and it will be multi-faceted. And the differences we have will be ironed out through negotiations, friendly talks and cooperation." And at the end of the meeting of Foreign Ministers of India and Pakistan in New Delhi on September 5 and 6, 2004, to review the status of the Composite Dialogue, the duo agreed to take further the expert level meetings on conventional and nuclear CBMs, *inter alia*, to discuss the draft agreement on advance notification of missile tests."

In 1988, India and Pakistan agreed to "refrain from undertaking, encouraging or participating in, directly or indirectly, any action aimed at causing the destruction of, or damage to, any nuclear installation or facility in the other country." The term 'nuclear installation or facility' includes nuclear power and research reactors, fuel fabrication, uranium enrichment, isotopes separation and reprocessing facilities, as well as any other installations with fresh or irradiated nuclear fuel and materials in any form and establishments storing significant quantities of radioactive materials. And the two countries also agreed to inform on January 1 of each calendar year, of the latitude and longitude of its nuclear installations and facilities and whenever there is any change. This practice is in regular use ever since it came into force from January 1, 1991, and the practice did not stop even during the crisis period

of 2002. However, "each side has questioned the completeness of the other's list."

Subsequently, a forward movement in nuclear CBMs was witnessed during the Indian Prime Minister's visit to Lahore in 1999.⁷³ The memorandum of understanding (MoU) signed by the foreign secretaries of the two countries at Lahore in 1999 mentioned that "The two sides shall engage in bilateral consultations on security concepts, and nuclear doctrines, with a view to developing measures for confidence-building in the nuclear and conventional fields, aimed at avoidance of conflict." The two countries agreed to provide each other with advance notification in respect of ballistic missile flight tests, and envisaged a bilateral agreement in this regard.

India and Pakistan at Lahore also committed to continue to abide by their respective unilateral moratoriums on conducting further nuclear test explosions. With a view to reaching bilateral agreements based on mutual deliberations and technical consultations, the two countries under the Lahore MoU included many significant issues such as national measures to reduce the risks of accidental or unauthorised use of nuclear weapons, notification in the event of any accidental, unauthorised or unexplained incident, prevention of incidents at sea in order to ensure safety of navigation by naval vessels and aircraft belonging to the two sides, review of the existing communication links (e.g., between the respective Directors-General of Military Operations), and periodic review of existing confidence-building measures. The two sides would also engage in bilateral consultations on security, disarmament and non-proliferation issues within the context of negotiations on these issues in multilateral fora. The expert level talks, led by Sheel Kant Sharma, and his Pakistani counterpart, Tariq Osman Hyder, during June 19-20, 2004, culminated in a joint statement⁷⁴ on nuclear CBMs with some repetition of important issues under the Lahore MoU. The joint statement recognises "the nuclear capabilities of each other, which are based on their national security imperatives, constitute a factor of stability." This implies that the two countries have moved beyond the earlier differing ambits of threat perceptions, for holding nuclear weapons in the respective states. Instead of questioning the rationality of possessing nuclear weapons, the two countries now acknowledge nuclear weapons as a factor of stability in the region.

The important issues covered in the joint statement are: upgradation of existing hotline between DGMOs; new dedicated and secure hotline between foreign secretaries to prevent misunderstanding, reduce risks relevant to nuclear issues; to conclude an agreement with technical parameters on pre-notification of missile

flight testing; unilateral moratorium on nuclear tests unless a country decides that extraordinary events have jeopardised its supreme interests; bilateral discussions and further meetings to work towards the implementation of the Lahore MoU of 1999, among others.

The provision in the joint statement of June 20, 2004, that "both countries will continue to engage in bilateral consultations on security and non-proliferation issues within the context of negotiations on these issues in multilateral fora" seems to reflect the shared view of India and Pakistan to work together against the existing discriminatory international regimes and policies of disarmament. While agreeing to reaffirm a unilateral moratorium on further nuclear tests, the joint statement also shows consciousness for "their obligations to their peoples and the international community." It is perhaps indicative of the two countries endorsing international concerns related to nuclear security in South Asia.

The foreign secretaries of the two sides, Riaz Khokhar and Shyam Saran, who met in Islamabad during December 27-28, 2004, to review the progress made during the meetings of the Experts on Nuclear and Conventional CBMs, stated that they have, "narrowed further their differences on the draft agreement on pre-notification of flight testing of ballistic missiles, and agreed to work towards its early finalisation." It is also reported that the Pakistani side has introduced 20 new proposals, including 'The Elements of a Strategic Restraint Regime (SRR)' comprising conflict resolution through a sustained, result-oriented dialogue; measures for nuclear restraint and conventional balance to be discussed at the political and experts level; objective of minimum credible deterrence; maintenance of nuclear weapons on low-alert status; no operational deployment of nuclear-capable ballistic or any other type of missiles/delivery systems; no acquisition or deployment of anti-ballistic missile systems; avoidance of a nuclear, missile, or conventional arms race; continuation of the national nuclear test moratoriums of both sides, as reaffirmed in the Joint Statement of June 20, 2004.

But, in the progressive mode of consultations and addition of fresh proposals at every next meeting of expert groups, there remains little hope for any definitive conclusion of the agreement soon. The issues involving the technical parameters of advance notification and deployment strategy, however, are tricky aspects.

Conclusion

The theoretical construct of the international security environment including India and Pakistan as states with nuclear weapons, is primarily based on the exclusivist assumption on the behaviour of 'the state' in times of crisis and peace. The international security discourse is dominated by the Cold War experience. The existing theoretical constructs does not acknowledge India's status at par with P-5 nuclear weapon states. The prevailing international security discourse of the West on the rationale of possession of nuclear weapons for the P-5, seems hesitant to integrate the universal application of any change in the global security balance. While the policy projections of the P-5 reflect inclusion of its own security concerns in the international security environment, the 'new nuclear weapon states' face diplomatic challenges of conceptual contestation. The difference in perceptions is largely related to strategic stability and security at both the regional and international levels.

The apprehension of strategic stability being fragile in the region remains the cause of concern for many observers of South Asia across the world. While both India and Pakistan believe in each other's deterrent capability, both of them have identified security vulnerabilities pertaining to possible accidental or unauthorised use of nuclear weapons. To assuage international and regional concerns related to the risk of miscalculations and misperceptions, there is need for evolving mutually agreed frameworks of bilateral confidence-building.

The two countries' difference of perceptions related to nuclear security are likely to continue as long as Pakistan does not shed ambiguity in doctrinal formulations. By maintaining ambiguity, Pakistan wants to keep the nuclear threshold high in the region. Any ambiguity in force preparedness is permissible to such an extent that it will not otherwise impede the process of ensuring nuclear confidence-building between the two countries. Mutual consultations on security concepts and nuclear doctrines may help bridge the gap of mutual mistrust. Such consultations may be veiled under official secrecy, but they also accompany mutual assurance in public. A significant step in this direction could be to mutually develop some postulates on nuclear signalling at appropriate levels in the respective governments.

However, some bumps on the road ahead may be related to issues affecting stability in the region, like Pakistan's control over cross-border terrorism, its efforts to derail the peace process on issues related to Kashmir and its own internal domestic weaknesses. Against this backdrop, the linking of nuclear confidence-building to other issues of traditional hostility between India and Pakistan may slow down the process of nuclear confidence-building in South Asia. It does not, however, exclude the fear of nuclear material and technology falling into the wrong hands in Pakistan. In essence, the issue of nuclear terrorism can be addressed effectively at multilateral levels rather than at the bilateral levels of India and Pakistan.

The earlier CBMs such as to provide advance notification of ballistic missile test-flights, maintain a unilateral moratorium on conducting further nuclear testing till the sovereignty right is not jeopardised, the joint declaration of August 1992 on the prohibition of chemical weapons, and existing communication links between DGMOs or Prime Minister's offices, have shown workable precedents which lay emphasis on mutual benefits in security matters. But a review of the effectiveness of past measures would help ascertain the authenticity of prevailing communication links to control escalation. There remains an element of uncertainty as to how Pakistan would react in case of a conventional military conflict. However, it can be said that despite rhetoric, neither side wants a nuclear conflict. To re-ensure nuclear stability, the recent diplomatic initiatives by India and Pakistan towards confidence-building that have resumed under the composite dialogue process since January 6, 2004, are progressing well, but still have a long way to go.

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