

A decorative pattern of twelve solid yellow circles arranged in a 4x3 grid on a dark teal background. One circle in the second row, second column is partially obscured by the title text.

# The Politics of Nuclear Weapons in South Asia

Edited by Bhumitra Chakma

A decorative graphic consisting of a 4x3 grid of twelve solid yellow circles on a dark green background. The circles are arranged in four rows and three columns, with the text overlaid on the middle two rows.

# The Politics of Nuclear Weapons in South Asia

Edited by Bhumitra Chakma

# THE POLITICS OF NUCLEAR WEAPONS IN SOUTH ASIA

# **The Politics of Nuclear Weapons in South Asia**

Edited by  
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## Preface

The conduct of nuclear tests by India and Pakistan in May 1998, happening at a time of relatively stable international order after the end of the Cold War, was like a bombshell. Washington had stopped New Delhi from undertaking such a nuclear test attempt in December 1995 by putting pressure on the Narashima Rao government when the intelligence agency of the former detected preparations for such a test at Pokhran. In 1998, no such detection occurred and the Indian Prime Minister Atal Behari Vajpayee stunned the world by announcing on 11 May 1998 that his country's scientists had undertaken a series of successful underground nuclear weapons tests. Washington geared up its diplomatic machinery to stop Pakistan from undertaking reactive nuclear tests, but eventually failed. When India tested, it was only a matter of time before Pakistan would follow suit and the Pakistanis accomplished that two weeks later.

The South Asian development in 1998 was immensely significant. It shook global nuclear politics. No other state, besides the five traditional nuclear powers (USA, Russia/Soviet Union, UK, France and China), had conducted open nuclear tests before the Indo–Pakistani tests since the conclusion of the Nuclear Non-Proliferation Treaty (NPT) in 1968. The event marked, as Paul Bracken has asserted, the 'actual beginning' of the Second Nuclear Age.

The immediate victim of the Indo–Pakistani tests was the global non-proliferation regime, particularly the NPT. It threw the NPT into an intractable dilemma because it could neither accept India and Pakistan as nuclear weapons states nor deny the reality of the two countries' possession of nuclear weapons. It severely jolted the credibility of the NPT as the key pillar of nuclear non-proliferation and a new twist was added to global nuclear politics that would carry an impact in the years to come.

If not earlier, India and Pakistan acquired the capability to build nuclear weapons by the end of the 1980s and the world had known their possession of nuclear weapons at least from the early 1990s. The nuclear tests of 1998

made their clandestine possession of nuclear arsenals overt. Was overt nuclearisation a good idea at all for a region otherwise known as an ‘conflict unending’? As if to keep such a status alive, India and Pakistan fought a brief, but intense, war over the disputed territory of Kashmir in 1999, barely a year after their nuclear tests. Then with only two years’ respite, the forces of the two countries stood face to face in 2001–02 in a ten month-long military stand-off, when they reportedly came close to nuclear war at least twice! The two countries again came close to another crisis in the wake of the terrorist attacks on India’s financial capital, Mumbai, in November 2008 by Pakistan-based militant group Laskar-e-Toiba. Surprisingly, this time the attacks did not explode into a major crisis. But any such future terrorist attack on India by Pakistan-based terrorist groups may not produce such an outcome.

As an openly nuclearised South Asia passed its first decade, the South Asia Project within the Department of Politics and International Studies at the University of Hull, UK, organised an international conference on the politics of nuclear weapons in the region in August 2008. The conference discussed issues ranging from the state of Indo-Pakistani nuclear deterrents and their nuclear doctrines, and the role of two systemic actors in the region’s nuclear politics, to the implications of the region’s overt nuclearisation and its confidence-building and nuclear arms control challenges.

I am greatly indebted to the participants of the conference for generating stimulating debates during the proceedings and to the authors for their support and cooperation throughout the process of producing this volume.

Professor George Talbot, former Dean of Arts and Social Sciences, University of Hull, extended great support to the conference and gave the inaugural address. His assistance helped immensely to carry us through the process.

Finally, my greatest debt is to Mr Justin Morris, Head of the Department of Politics and International Studies, for his unfailing support and encouragement during the whole process of producing this volume. Without his support, I am aware, things could have been quite difficult, even impossible.

Bhumitra Chakma

## **List of Abbreviations**

ABM	Anti-Ballistic Missile
ADM	Atomic Demolition Munitions
ALCM	Air Launched Cruise Missile
ARF	ASEAN Regional Forum
ASEAN	Association of Southeast Asian Nations
ATV	Advanced Technology Vehicle
BJP	Bharatiya Janata Party
BMD	Ballistic Missile Defence
BRBM	Battlefield-Range Ballistic Missile
CBMs	Confidence-Building Measures
CCS	Cabinet Committee on Security
CD	Conference on Disarmament
CEA	Commissariat à l'Énergie Atomique
CSBMs	Confidence and Security Building Measures
CSCE	Conference on Security and Cooperation in Europe
CTBT	Comprehensive Test Ban Treaty
DCC	Development Control Committee
DND	Draft Nuclear Doctrine
DRDO	Defence Research and Development Organisation
ECC	Employment Control Committee

EU	European Union
FMCT	Fissile Material Cut-off Treaty
GRIT	Graduated Reciprocation in Tension Reduction
HEU	Highly Enriched Uranium
IAEA	International Atomic Energy Agency
IAF	Indian Air Force
IGMDP	Integrated Guided Missile Development Programme
IISS	International Institute for Strategic Studies
IRBM	Intermediate-Range Ballistic Missile
ISI	Inter-Services Intelligence
ISRO	Indian Space Research Organisation
JeM	Jaish-e-Mohammed
LeT	Lashkar-e-Taiba
LoC	Line of Control
LOW	Launch-on-Warning
LUA	Launch Under Attack
MFN	Most-Favoured Nation
MIRV	Multiple Independently Targetable Re-entry Vehicles
MoU	Memorandum of Understanding
NCA	National Command Authority
NCBMs	Nuclear Confidence-Building Measures
NDA	National Democratic Alliance
NFU	No First Use

NPT	Non-Proliferation Treaty
NRRC	Nuclear Risk Reduction Centres
NSA	National Security Advisor
NSAB	National Security Advisory Board
NSC	National Security Council
NSG	Nuclear Suppliers Group
NWS	Nuclear Weapons States
PAEC	Pakistan Atomic Energy Commission
PAROS	Preventing an Arms Race in Outer Space
PLA	People's Liberation Army
PMO	Prime Minister's Office
PNE	Peaceful Nuclear Explosion
PoK	Pakistan-Occupied Kashmir
PRC	People's Republic of China
PTBT	Partial Test Ban Treaty
SAARC	South Asian Association for Regional Cooperation
SAFTA	South Asian Free Trade Agreement
SEANWFZ	Southeast Asian Nuclear Weapons-Free Zone
SFC	Strategic Forces Command
SLBM	Submarine-Launched Ballistic Missile
SNEP	Subterranean Nuclear Explosion Project
SPD	Strategic Plans Division
SRBM	Short-Range Ballistic Missile
SSBN	Ship Submersible Ballistic Nuclear
SSN	Ship Submersible Nuclear
UNDP	United Nations Development Programme

WMD Weapons of Mass Destruction

WTO World Trade Organisation



# Introduction

Bhumitra Chakma

After pursuing policies of ‘ambiguity’ and ‘opacity’<sup>1</sup> for decades, India and Pakistan entered into a new phase of nuclear evolution by conducting series of open nuclear tests in May 1998. With those tests they emerged as de facto nuclear weapons states<sup>2</sup> and opened a new chapter in the nuclear politics of the region. The Indo–Pakistani nuclear tests also left huge implications for the Non-Proliferation Treaty (NPT) and global nuclear politics. They shook the foundation of the NPT, as the treaty could neither accept India and Pakistan as nuclear weapons states or ignore the reality that had emerged following those tests. The political implications of the tests for the viability and efficacy of the NPT were huge.

As overt nuclear weapons states, India and Pakistan had to reorient many of the nuclear assumptions – political and military – that they previously held. They had to reconfigure their nuclear policies and strategies, build credible nuclear deterrents and embark on formulating nuclear doctrines and creating command and control systems in order to construct a stable Indo–Pakistani nuclear deterrence. While they were in the process of building nuclear deterrence structures, the two countries weathered two serious nuclear crises: the Kargil conflict in 1999 and a ten-month stand-off between the forces of the two countries in 2001–02.

The Kargil conflict erupted in early spring, 1999, when about 800 Pakistani regular and irregular forces took control of hilltops inside the Indian area of the Line of Control (LoC). As New Delhi became aware of the Pakistani intrusion, India responded with ground and air attacks aimed at evicting the Pakistani forces, resulting in a brief, but intense, war between the two countries. Eventually the war ended with American diplomatic intervention.<sup>3</sup> A key objective of Pakistan behind the Kargil incursion was to internationalise the Kashmir dispute and attract international mediation, specifically by the US, for its resolution.<sup>4</sup> The

Pakistani leadership took the Kargil decision based on the assumption that Pakistan's possession of nuclear weapons would restrain India from attacking their country.<sup>5</sup> Furthermore, the Pakistanis concluded that if any escalation were to occur, the United States would intervene out of fear that nuclear war might break out between India and Pakistan.

In 2001–02, about two and a half years after the Kargil conflict, India and Pakistan were again embroiled in another explosive crisis. This erupted when New Delhi, adopting a strategy of compellence, mobilised its armed forces in reaction to the terrorist attack on the Indian Parliament by Pakistan-based terrorist groups on 13 December 2001. Islamabad counter-mobilised its forces as a precaution against a potential Indian attack, thus initiating a ten-month long face-to-face, tense military stand-off between the forces of the two countries. The crisis ended in October 2002 when New Delhi announced its decision to withdraw its forces from the border regions. The episode was a classic case of compellence under the nuclear shadow.<sup>6</sup> Although it did not spiral out of control, thanks to the deterrence diplomacy of the United States and other international actors, it nevertheless had the potential of a nuclear conflagration resulting from escalation.

These two episodes highlighted how nuclear weapons were playing out in the strategic politics of the region in the post-test era. Indeed, what has transpired in a nuclear South Asia – and the issues raised in this volume – can be defined as ‘politics of nuclear weapons.’ Nuclear politics are played out by states in a nuclear environment in order to realise intended politico-strategic objectives. Although nuclear weapons states prepare elaborate nuclear use plans in their nuclear doctrines, in reality they do not prioritise their employment in order to win battles. Instead, they prioritise politico-strategic goals over pure military objectives in pursuing nuclear policies. Nuclear politics, therefore, can be situated in the juxtaposition of developing appropriate deterrent capabilities and the use of those capabilities to pursue politico-strategic objectives.

Since the May 1998 nuclear tests, 12 years have elapsed and it is time to take stock of what has transpired in a nuclear South Asia. This volume does that by addressing the key issues of South Asia's nuclear weapons politics, ranging from the consequences of the region's nuclearisation to the nuclear doctrines of India and Pakistan and issues of confidence-building and nuclear arms control. It is not an exhaustive study of the region's nuclear weapons politics and, indeed, it is not possible to cover all aspects of South

Asia's nuclear politics in a single volume. However, it covers the key areas of Indo–Pakistani nuclear weapons politics that will contribute to an understanding of the region's nuclear dynamics.

## **Structure of the Volume**

India and Pakistan are two typical cases of horizontal nuclear weapons proliferation and their nuclear tests marked the 'actual beginning of the second nuclear age.'<sup>7</sup> The Indo–Pakistani nuclear deterrence constitutes a key pillar of the structure of the second nuclear age.<sup>8</sup> The two countries are resource-poor, technologically underdeveloped and regionally oriented nuclear weapons states, all of which puts them into considerable contrast with those of the traditional nuclear powers – the USA, Russia/The Soviet Union, Britain, France and China. Their nuclear postures and the challenges they confront in building their nuclear capabilities are, hence, bound to be different in many ways. In [Part I](#), three chapters address those issues, particularly the state of the nuclear deterrents of the two countries, their force-building plans and challenges, and the similarities between the two states and the traditional set of nuclear powers. Rajesh M. Basrur in the opening chapter provides a robust theoretical and empirical explication of two decades of South Asia's minimum nuclear deterrence,<sup>9</sup> and compares it with other deterrence systems, i.e. US–Soviet, China–Soviet, etc. Basrur concludes that minimum deterrence, notwithstanding considerable challenges, works in general and has worked in South Asia in the past two decades.

Sumit Ganguly and Bhumitra Chakma in [Chapters 2](#) and [3](#) survey the nuclear force-building postures of India and Pakistan respectively, critically assess the challenges they confront in building their capabilities and extrapolate their future prospects. Ganguly's analysis seeks to identify the progress that India has made in developing a triad force comprising air, land and sea-based assets, focus on the factors that continue to drive these programmes, discuss the limitations of India's extant nuclear weapons capabilities, and identify future challenges that India is likely to face as it strives to fashion a nuclear force capable of safeguarding its strategic interests. Similarly, Chakma's chapter provides an update on Pakistan's

nuclear force-building, assesses its limitations and discusses the challenges that the country may confront in pursuing its force-building plan.

An immediate concern following the 1998 nuclear tests was whether India and Pakistan had adequate doctrinal and command and control structures in place for stable deterrence and to forestall inadvertent nuclear use. Critics pointed out that the region confronted a genuine fear of nuclear catastrophe due to doctrinal and command and control weaknesses.<sup>10</sup> New Delhi announced a draft nuclear doctrine on 17 August 1999 and eventually adopted it, with some modifications, in January 2003. Islamabad did not formally announce any nuclear doctrine, but revealed the setting up of a National Command Authority (NCA) comprising the Employment Control Committee (ECC), the Development Control Committee (DCC) and the Strategic Plans Division (SPD) to serve as the secretariat of the NCA. All doctrinal, employment and deployment control over all strategic forces and strategic organisations of Pakistan were delegated to this apex nuclear decision-making body.

India and Pakistan addressed some of the critical doctrinal, command and control issues through those measures. However, questions still remained about how robust those measures have made mutual deterrence stable and fail-proof. In [Part II](#) of the volume, two chapters address the doctrinal and command and control issues of the two countries. Swaran Singh in [Chapter 4](#) examines India's post-tests doctrinal issues. In a similar fashion, Bhumitra Chakma in [Chapter 5](#) thoroughly examines Pakistan's endeavour to build a nuclear doctrine and command and control system and the challenges and dilemmas it confronted in doing so. Both chapters indicate that after 12 years of doctrinal and command and control developments, there are still questions about the robustness of the two countries' nuclear structures.

[Part III](#) illuminates the role of the two systemic powers – China and the US – in South Asian nuclear deterrence and the consequences of nuclear proliferation in the region on regional cooperation. Indeed, a key feature of Indo–Pakistani nuclear deterrence is its link to the international system and the intrusion of the systemic forces into the region's nuclear dynamics. A regional system is by nature an intrusive system, or what many call a 'subordinate state system,' and can be defined in terms of 'constant penetration by the Dominant System' into it.<sup>11</sup> The South Asian regional deterrence is constantly penetrated and affected by extra-regional forces,

which presents a clear contrast to the Cold War deterrence system. Given such a context, Binoda Kumar Mishra in [Chapter 6](#) provides a closer scrutiny of the China factor in South Asia's nuclear politics, particularly focusing on how it affects India's nuclear behaviour. It is pertinent to note that although Pakistan is the immediate nuclear concern for India, in the longer run and in the context of Asian nuclear politics China is the key factor in New Delhi's nuclear thinking. In [Chapter 7](#) Bhumitra Chakma examines the US role in Indo–Pakistani nuclear deterrence. The chapter specifically explores Washington's deterrence diplomacy in two South Asian crises – the 1999 Kargil conflict and the 2001–02 military stand-off, which had clear nuclear implications. Without America's diplomatic intervention, Chakma asserts, the crises could have escalated into large-scale Indo–Pakistani conflict with the possible use of nuclear weapons.

In the third chapter of [Part III](#), Nishchal Nath Pandey and Bhumitra Chakma analyse the consequences of nuclear proliferation on South Asian regional cooperation. Following the nuclearisation of the region, a debate emerged on whether it would lead to greater or lesser regional cooperation. Some argued that nuclearisation would help regional cooperation because nuclear weapons would create stability in the strategic relations between India and Pakistan, which traditionally had hindered the activities of South Asian Association for Regional Cooperation (SAARC). Others pointed out that nuclear weapons had made Indo–Pakistani strategic relations even more precarious, hence nuclear weapons were bound to make a negative impact on regional cooperation.

South Asia is the most pressing case of immediate deterrence<sup>12</sup> in the world today. The immediacy of South Asian deterrence highlights the pressing necessity of establishing deterrence stability between India and Pakistan. For this, the pursuit of vigorous confidence-building measures and formal arms control agreements between the two countries could be the most pragmatic option, given that for now a nuclear-free or denuclearised South Asia has become an impractical proposition. In [Part IV](#), four chapters address various aspects of the region's confidence-building and nuclear arms control prospects. Nicholas J. Wheeler in [Chapter 9](#) develops a theoretical framework – which he calls a 'leap of trust' – to examine a particular episode of the India–Pakistan reconciliation process: the Lahore summit of 1999 and the confidence-building documents that it produced. He argues that a particular way of breaking the trap of the security dilemma

is to undertake a leap of trust, specifically the one that the Indian Prime Minister Atal Behari Vajpayee took with his bus trip to Lahore to meet with his Pakistani counterpart, Nawaz Sharif. Although Vajpayee's leap of trust attempt failed due to the eruption of the Kargil conflict, yet it left significant lessons for future Indo–Pakistani reconciliation.

India and Pakistan have failed to develop sustained confidence-building mechanisms for the normalisation of their bilateral relations since as far back as the time they became independent states. Therefore, it is worthwhile exploring fresh avenues now, in light of new realities that have emerged since the open nuclearisation of the region. Zafar Nawaz Jaspal in [Chapter 10](#) develops alternative approaches to confidence-building between India and Pakistan. He suggests that India and Pakistan must come to terms with new nuclear realities and undertake appropriate confidence-building steps in order to avoid deterrence failure. In the following chapter, Dipankar Banerjee broadens the arguments of the previous two chapters in [Part IV](#) by bringing in the China factor into his confidence-building framework for the region. Banerjee argues that for any confidence-building measure to be meaningful and effective, China needs to be included in the process. After all, New Delhi's long-term strategic anxiety is China, rather than Pakistan. Banerjee suggests a number of concrete confidence-building measures, such as the formulation of a common nuclear doctrine, the signing of the CTBT and FMCT by all three countries, etc. These measures, according to Banerjee, will significantly reduce nuclear dangers in the region.

In the final chapter, Bhumitra Chakma explores the structural challenges for nuclear arms control in South Asia. He asserts that despite compelling necessity, India and Pakistan have yet to undertake serious arms control measures to stabilise their mutual deterrence and minimise the risk of nuclear use. Three critical factors underscore their disinterest in arms control. First, they are in the formative phase of their nuclear force-building and in this phase they are unlikely to do anything that might affect their force-building plan and consequently harm the credibility of their deterrent capabilities. Second, political accommodation is a prerequisite for successful arms control, which is clearly absent in the context of India and Pakistan. Third, the extra-regional and systemic link of the South Asian security dilemma makes successful arms control complex. Owing to these factors, prospects for arms control in the region is not bright in the foreseeable future.

1 According to Cohen and Frankel, nuclear ambiguity can be explained in two senses; first, it means that ‘there is a genuine uncertainty, that is, lack of sufficient knowledge as to the technical nuclear status of the country under study;’ in the second sense, it ‘refers to an ambivalence – political, military or even cultural in origin – on the part of the suspect country’s leadership concerning nuclear weapons.’ See Avner Cohen and Benjamin Frankel, ‘Opaque Nuclear Proliferation,’ in *Opaque Nuclear Proliferation: Methodological and Policy Implications*, ed. Benjamin Frankel (London: Frank Cass, 1991), p. 19. In the India and Pakistan context, Stephen Cohen termed the phenomenon ‘designed ambiguity,’ see Stephen Philip Cohen, ‘Policy Implications,’ in Stephen Philip Cohen, ed., *Nuclear Proliferation in South Asia: The Prospects for Arms Control* (Boulder, CO: Westview Press, 1991), pp. 340–41. Thomas W. Graham used the term ‘calculated ambiguity’ to define the notion, see ‘Shiva and Allah: Nuclear Futures for India and Pakistan,’ The Wilson Centre, Asia Program, Occasional Paper Number 28, 1986. Until the late 1980s, both India and Pakistan pursued a policy of ambiguity, which subsequently was replaced by ‘opacity.’ Cohen defines nuclear opacity as ‘a situation in which a state’s nuclear capability has not been acknowledged, but is recognised in a way that influences other nations’ perceptions and actions.’ See Avner Cohen, *Israel and the Bomb* (New York: Columbia University Press, 1998), p. 2.

2 Although India and Pakistan emerged as nuclear weapons states by openly testing nuclear weapons, they remained unacknowledged, de facto nuclear powers from the standpoint of the Non-Proliferation Treaty (NPT). According to Article IX of the NPT, ‘a nuclear-weapon State is one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967.’ There are, therefore, only five ‘legitimate’ nuclear weapons states in the world – the United States, Russia (the former Soviet Union), Britain, France and China – because they conducted nuclear tests before that cut-off date.

3 Bruce Riedel, *American Diplomacy and the 1999 Kargil Summit at Blair House*, CASI Policy Paper Series no. 5 (Philadelphia: University of Pennsylvania, 2002).

4 Shaukat Qadir, ‘An Analysis of the Kargil Conflict 1999,’ *RUSI JOURNAL* (April 2002).

5 Devin T. Hagerty, ‘The Kargil War: An Optimistic Assessment,’ in Sumit Ganguly and S. Paul Kapur, eds., *Nuclear Proliferation in South Asia: Crisis Behaviour and the Bomb* (London: Routledge, 2009), p. 103.

6 Sumit Ganguly and Michael R. Kraig, ‘The 2001–2002 Indo–Pakistani Crisis: Exposing the Limits of Coercive Diplomacy,’ *Security Studies*, vol. 14, no. 2, pp. 290–324.

7 Paul Bracken, *Fire in the East: The Rise of Asian Military Power and the Second Nuclear Age* (New York: HarperCollins Publishers, 1999), p. 110; on the second nuclear age, also see Colin S. Gray, *The Second Nuclear Age* (Boulder, CO: Lynne Rienner, 1999).

8 For a general discussion on the issue, see Paul Bracken, ‘The Structure of the Second Nuclear Age,’ *Orbis*, vol. 47, no. 3 (Summer 2003), pp. 399–413.

9 Following the nuclear tests in 1998, both India and Pakistan announced that they would pursue a posture minimum nuclear deterrence. Minimum nuclear deterrence assumes that the lowest number of nuclear weapons possible would deter the adversary from undertaking an attack. Minimum nuclear deterrence can be put into contrast with other types of deterrence postures, such as assured destruction, limited deterrence, minimum deterrence, opaque deterrence and virtual deterrence. For a discussion on this, see Rajesh M. Basrur, *Minimum Deterrence and India’s National Security* (Stanford, CA: Stanford University Press, 2006), pp. 24–32.

10 M.V. Ramana, R. Rajaraman and Zia Mian, ‘Nuclear Early Warning in South Asia: Problems and Issues,’ *Economic and Political Weekly* (Mumbai), vol. 39, issue 3 (17 January 2004), pp. 279–84. Clayton B. Bowen and Daniel Wolven, ‘Command and Control Challenges in South Asia,’ *The Nonproliferation Review*, vol. 6, no. 3 (Spring–Summer 1999), pp. 25–35; Admiral (Retd.) L. Ramdas, ‘Myths and Realities of Nuclear Command and Control in India and Pakistan,’

*Disarmament Diplomacy*, issue 54 (February 2001). Also on this issue, see Feroz Hassan Khan, 'Nuclear Command-and-Control in South Asia During Peace, Crisis and War,' *Contemporary South Asia*, vol. 14, no. 2 (June 2005), pp. 163–74; Rajesh M. Basrur, 'Nuclear Command-and-Control and Strategic Politics in South Asia,' *Contemporary South Asia*, vol. 14, no. 2 (June 2005), pp. 155–61; Shaun Gregory, 'A Formidable Challenge: Nuclear Command and Control in South Asia,' *Disarmament Diplomacy*, issue 54 (February 2001).

<sup>11</sup> For more exposure on this issue, see Michael Brecher, 'International Relations and Asian Studies: The Subordinate State System of Southern Asia,' *World Politics*, vol. 15, no. 2 (January 1963), p. 228. For other works on the 'subordinate state system,' see William I. Zartman, 'Africa as a Subordinate State System in International Relations,' *International Organization*, vol. 21, no. 3 (Summer 1967), pp. 345–64; Larry W. Bowman, 'The Subordinate State System of Southern Asia,' *International Studies Quarterly*, vol. 12, no. 3 (September 1968), pp. 231–62; Leonard Binder, 'The Middle East as a Subordinate State System,' *World Politics*, vol. 10 (April 1958), pp. 408–29; Bruce M. Russett, *International Regions and the International System* (Chicago, IL: Rand McNally, 1967); Louis J. Cantori and Steven L. Spiegel, *The International Politics of the Regions: A Comparative Approach* (Englewood Cliffs, N.J.: Prentice-Hall, 1970).

<sup>12</sup> Patrick Morgan coined the term 'immediate deterrence' in contradistinction to the term 'general deterrence.' Immediate deterrence refers to a situation in which an actor realises that another specific actor is seriously contemplating an attack and undertakes measures to deter that attack. See Patrick Morgan, *Deterrence Now* (Cambridge: Cambridge University Press, 2003), p. xvi.



**PART I**  
**Nuclear Deterrence and South Asia: Conceptual  
and Practical Dimensions**

# Chapter 1

## Two Decades of Minimum Deterrence in South Asia: A Comparative Framework\*

Rajesh M. Basrur

On the tenth anniversary of the 1998 Indian and Pakistani nuclear tests, a number of authoritative writings reflected on a decade of subcontinental strategic experience.<sup>1</sup> While useful, these discussions had some significant limitations. First, their historical perspective was limited. The year 2008 marked the tenth anniversary of a series of tests declaring the official ‘coming out’ of the two countries, *not* of the nuclearisation of the subcontinent. South Asia’s nuclearisation had a more complicated history. India had demonstrated its capability to produce a nuclear weapon much earlier, in 1974, but had refrained from building a nuclear arsenal. The order to actually manufacture the bomb was given by Prime Minister Rajiv Gandhi in 1989.<sup>2</sup> In the meantime, Pakistan had already obtained the bomb in the mid-1980s.<sup>3</sup> Thus, the history of Indo–Pakistani mutual deterrence completed its *second* decade in 2009. This revised perspective is important as it allows us to view the relationship within a longer time frame and incorporates the working of deterrence in a covert form. In addition, the scholarly work on the ‘tenth’ anniversary was relatively narrow in scope. It tended to treat the India–Pakistan relationship within the framework of a debate about proliferation rather than one about nuclear weapons powers.<sup>4</sup> Hence it lacked a comparative perspective on the ways in which nuclear rivals interact. In this chapter, I treat the nuclear–strategic relationship between India and Pakistan as one of a generic type of strategic relationship – a ‘nuclear rivalry’ – which displays certain common features over time and space.<sup>5</sup> The comparative approach adopted here provides useful insights not only into the nature of the India–Pakistan relationship, but also into similar relationships past, present and future. It helps fill a large gap in the

literature on nuclear relationships, which have tended to look at each nuclear rivalry separately, with much of the focus on the Cold War.

The chapter begins by elaborating on the concept of minimum deterrence, framing it within the terms of the Cold War-era debate between the seminal thinkers Albert Wohlstetter and Patrick Blackett, whose ideas capture the essential differences between the alternative strategies of assured destruction and minimum deterrence.<sup>6</sup> This approach is useful because it tells us something vitally important about the validity of minimum deterrence in general and about some of the problems inherent in the way India and Pakistan think about nuclear weapons, and also about the contradictions in the thinking and behaviour of all nuclear-armed states.

Below, I analyse the India–Pakistan nuclear relationship with reference to three other historical nuclear rivalries: those between the United States and the Soviet Union, the United States and China, and the Soviet Union and China. The next part of the chapter lays down the analytical framework by identifying the chief patterns evident in nuclear rivalries. In the third part, the processes of nuclear rivalry are examined with reference to crisis and non-crisis thinking and behaviour. The concluding part of the chapter sketches out the implications of the comparison and assesses the future of India–Pakistan nuclear–strategic relations. The central arguments are as follows. First, all nuclear rivalries display a common pattern which demonstrates that deterrence works at a minimal level regardless of beliefs about the requirements of deterrence, which vary widely. Second, all nuclear-armed states, again to varying degrees, display a fundamentally schizophrenic behaviour pattern. When conflict draws close, they reject the usability of nuclear weapons and ignore the tenets of deterrence theory and doctrine; but when conflict is distant, they behave as if the weapons are usable and allow the same principles to influence their doctrines and weapons acquisitions. The India–Pakistan case reveals a relatively cost-effective and risk-resistant minimalism, but is distorted by powerful elements of Wohlstetterian thinking that has produced an arms race and a significant element of instability into the relationship.

## **Defining Minimum Deterrence**

What does it take to deter? This is hard to pinpoint with any precision because no one can be sure about how much punishment an adversary is willing to tolerate. Indeed, the threshold between acceptable and unacceptable pain can hardly be knowable in advance – one has to experience the pain to discover the point of transition. Wohlstetter and Blackett diverged widely here and from this point the logic of their perspectives carried the trajectories of those who followed them far apart. Wohlstetter argued that the Soviet Union, having lost many millions in World War II, could tolerate massive losses, which meant that to deter it the United States would require the assured capability to inflict a large number of fatalities. Blackett took the opposite view, arguing that precisely because it had undergone such terrible pain the Soviet Union, not wishing for a repetition, would not be difficult to deter. From Wohlstetter's position that effective deterrence requires the assured capacity to inflict large-scale damage, it followed that to be fully secure, one has to have the capacity to retaliate in a big way after one has been subjected to a surprise attack. Thus, to be effective, a deterrent force must possess assured second-strike capability, i.e. it has to be large, survivable and reliable so as to be able to inflict immense retaliatory damage after being struck first. If two adversaries adopt this position, open-ended arms racing is virtually inevitable. This is what happened in the US–Soviet case. Against this, Blackett argued that since the prospect of relatively limited damage is sufficient to deter and no first strike can be wholly successful, residual retaliatory capacity after a surprise attack, even 10 per cent of the original force, is sufficient to deter. Wohlstetter's approach logically led to the making of a large, sophisticated and diverse arsenal involving high expenditure, whereas Blackett's was content with much less in every respect. In short, here lay the genesis, conceptually, of the assured destruction strategy adopted by the United States and the minimum deterrence approach espoused by India and Pakistan.

In the India–Pakistan case, the approach is even more minimalistic. First, not only is the quantum of damage capability required to deter thought to be quite small (though this has never been officially stated other than in general terms such as 'unacceptable'), the posing of a visible threat to retaliate has never been intrinsic to the deterrence posture of either country. On the contrary, whereas the United States and the Soviet Union/Russia have adopted high-visibility ready-to-fire alert postures, both India and

Pakistan have kept their weapons in unassembled condition.<sup>7</sup> Second, whereas the major nuclear powers have considered it necessary to carry out large numbers of tests in order to ensure the reliability of their weapons, India and Pakistan have been content with a small number of tests (each has conducted just six) before announcing moratoria that could be indefinite. And third, again in contrast to all other sets of nuclear rivals, India and Pakistan have attempted to negotiate nuclear stability at a very early stage. Their first agreement, initialled in December 1988, is particularly interesting. At the time, neither had admitted it possessed the bomb. The agreement, which committed them not to attack each other's nuclear facilities, incorporated an implicit recognition that attacks on nuclear plants and related facilities can produce some of the effects of atomic bombing by way of radiation.<sup>8</sup> Arguably, this involved the recognition that some form of deterrence was already present in this proto-nuclear weapons phase of the region's history. Thereafter, as both countries kept their capabilities recessed, they exercised what might be called 'opaque' deterrence.<sup>9</sup> As I will show, the pattern did not change much when they shifted to overt deterrence.

In the next part of the chapter, I utilise a comparative perspective to assess the relevance of the competing conceptions of deterrence advocated by Wohlstetter and Blackett by looking at historical practice by nuclear rivals generally and, more specifically, by India and Pakistan.

## **Patterns in Nuclear Rivalry**

Nuclear rivalries exhibit two broad patterns, both with inbuilt contradictions. First, the nuclearisation of a hostile strategic relationship (by which I mean when both sides are in possession of nuclear weapons) produces both conflictive and cooperative effects. On the one hand, it quickly sharpens mutual threat perceptions, aggravates tensions and often engenders crisis. On the other, the actual occurrence of crisis produces the opposite effect, for nuclear weapons induce cooperation because they threaten to impose large-scale costs on both sides in the event of war. Second, all nuclear-strategic relationships display a tension between cooperative behaviour during crisis (the revolutionary effect of nuclear weapons) and a conflictive orientation (conventional or pre-nuclear

behaviour) in non-crisis times. The latter is a symptom of the power of ideas – of the ways in which conventional thinking persists in post-conventional times. I elaborate below.

Whereas strategic analysts and policymakers frequently adopt a realist approach, stressing the importance of power and its distribution (which implies the usability of force) in military–strategic relationships, nuclear weapons do not in fact fit in with this world view.<sup>10</sup> On the contrary, nuclear weapons produce a high degree of interdependence between rivals who possess them. The realist approach neglects the phenomenon of interdependence, which raises the cost of a breakdown in any relationship and obliges states to cooperate in order to prevent this from happening.<sup>11</sup> The potential cost of going to war is so great in a nuclear weapons environment that states are compelled to cooperate in order to avoid it.<sup>12</sup> Even a small risk of being hit by a small number of nuclear weapons is invariably seen as unacceptable. This is evident from a review of the way in which nuclear-armed states have behaved in every confrontation thus far. The United States and the Soviet Union were embroiled in several crises, notably in Berlin in 1961 and Cuba in 1962; American and Chinese forces came head to head in the 1960s in the Vietnam War; and Soviet and Chinese forces fought skirmishes over a period of several months along their border in 1969.<sup>13</sup> In every case, both sides displayed abundant caution in avoiding escalation. Indeed, the pattern that emerges shows that nuclear rivals avoid not only nuclear conflict, but major conventional war as well. As we will see, India and Pakistan conform to this pattern.

The interdependence created by nuclear weapons is not uniform, but has two facets. Here, I draw a distinction between *immediate* and *general* interdependence.<sup>14</sup> Immediate interdependence may be said to exist when there is a crisis and the risk of war is high. Here, the chief aim is to avoid war since the potential costs are invariably viewed as unacceptable when weighed against the potential gains. Realist calculations about relative power do not count; nor do the minutiae of nuclear doctrine. For instance, in the US–Soviet confrontations, the apparent advantage in numbers (a ratio of approximately 1:10 in warheads) and quality of weapons enjoyed by the US had no bearing on the outcome of the crisis.<sup>15</sup> Nor is there any evidence of the Wohlstetterian calculus about deterrence effectiveness at work in the decision-making during the crises. In all cases where nuclear rivals enter

into a state of crisis, there is a marked preference for cooperation, at minimum tacit and often explicit.

In 'normal' times, when there is antagonism but no imminent threat of war, there is a state of general interdependence between nuclear rivals. The option to go to war is ruled out, but varying policies and responses are possible short of that. In purely rational terms, since the tenets of doctrine hardly apply during crisis, it would seem sensible to revise doctrine and retain no more than minimal forces. But, of course, that does not necessarily happen. On the contrary, precisely because the urgency of crisis has receded, states have the flexibility to pursue policies that depart from cost effectiveness. Their propensity to do so is driven by the symbolic power of centuries of conventional thinking, which inclines them to treat nuclear weapons as just another set of instruments of force rather than a revolutionary phenomenon.<sup>16</sup> As Barry O'Neill has shown, lack of experience with the actual use of nuclear weapons has created a symbolic 'thought style' that incorporates simplified conventional ways of thinking.<sup>17</sup> Thus, the vocabulary of 'balance of power' – which clearly does not apply to nuclear weapons, remains standard fare in the discourse on nuclear weapons.

States measure each other's relative capabilities, develop elaborate strategic doctrines, build arsenals and so on, as if they are in a conventional environment. Despite the experience of the Berlin and Cuban crises, the United States and the Soviet Union accumulated massive arsenals that effectively abandoned rationality in accumulating more than 13,000 nuclear warheads each by the end of the Cold War.<sup>18</sup> Others have not followed on the same scale owing to restraining factors, primarily economic, but also strategic. For instance, Britain and France have had the benefit of the American deterrence umbrella. But the discourse in all nuclear powers displays elements seen in Wohlstetter's thinking. His notion of 'assured second-strike capability' became the intellectual centrepiece of American nuclear doctrine, while Soviet doctrine produced its own version. China has retained a relatively small arsenal, but has dabbled with an expansion-oriented conception of 'limited deterrence' that conceives of a US/Russian-type nuclear force on a smaller scale.<sup>19</sup> All nuclear powers have to some degree internalised this dubious principle.<sup>20</sup> Thus, the strategic behaviour of states engaged in nuclear rivalries tends to be schizophrenic, treating

nuclear weapons sometimes as revolutionary and sometimes as conventional.<sup>21</sup>

The archetypal historical pattern between nuclear rivals may be outlined as follows. With a background of strong hostility from the pre-nuclear period, the relationship deteriorates when it is close to being nuclearised. The side which has nuclear weapons first has an incentive to launch a preventive strike and, because both are aware of this, tensions often rise even if such a strike is not intended.<sup>22</sup> The only instance of this actually happening so far is the Israeli attack on Iraq's Osirak reactor in 1981, but others have contemplated such attacks and several emergent nuclear powers have feared them. For instance, the United States seriously considered a preventive attack against China in the early 1960s.<sup>23</sup> There is also some evidence to show that Israel launched a successful preventive attack in September 2007 on what it believed to be an infant Syrian nuclear weapons programme.<sup>24</sup>

Once a rivalry is nuclearised, it carries significant elements of instability for a number of reasons. First, especially in its early phase, a temptation is present (again, either real or potential) for one side to undertake a pre-emptive 'decapitating' or 'surgical' strike and wipe out the new nuclear power's infant capability. The United States contemplated pre-emptive strikes against China in the mid-1960s, while the Soviet Union considered pre-emptive strikes on China in 1969. Second, one side may take advantage of its attainment of nuclear deterrence capability to apply pressure at a sub-conventional level, i.e. below the nuclear and conventional levels, typically by marginal military action (as China did in 1969) or by backing extremists fighting the adversary state (as the United States did in Afghanistan in the 1980s). Third, an action–reaction process of rising antagonism, of move and counter-move, produces escalating tension that peaks with military confrontation and crises, often the consequence of coercive strategies. Several of these crises have been mentioned above. The Cuban Missile Crisis was a classic example of a crisis arising from brinkmanship and coercion. This brings the belligerents to the brink of war and may sometimes involve actual but marginal combat, as between the United States and China in the mid-1960s and between the Soviet Union and China in 1969. Even in the US–Soviet case, there were at least two cases of acts that could in other circumstances have been precursors to war: American U2 aircraft were shot down over the Soviet Union in 1960 and (by Cuban



forces) over Cuba in 1962. At this point, immediate deterrence comes into play. The high risk involved invariably causes both sides to be cautious and to take measures to avoid escalating the conflict to war. Negotiations are set in motion and the crisis subsides, sometimes followed by a formal agreement. Most crises occur when at least one side has a low level of technical capacity, yet deterrence operates uniformly.

But despite the revelation that deterrence works at a very simple and low level, states – upon return to general deterrence – continue to seek more and better weapons, build alliances, compete for influence in third countries and in general behave as if power politics remains unaffected by nuclear weapons. This propensity is most starkly evident in the nuclear doctrines and force acquisitions of nuclear-armed states, which frequently revolve around balance of power considerations. Nuclear rivals also tend to strain at the leash, as it were, and engage in brinkmanship and other forms of crisis-inducing behaviour. Subsequently, the pattern varies. Some pairs go through a series of recurring crises; others prefer to distance themselves and remain hostile without further eruptions. All of the above patterns are present in the India–Pakistan relationship and are illustrated in the following part of this chapter.

## **The India–Pakistan Nuclear Rivalry**

The India–Pakistan rivalry is embedded in the history of the two countries from the time of their independence in 1947, when the subcontinent was partitioned, with Pakistan created as a new Muslim-majority state.<sup>25</sup> An estimated 12–15 million people were displaced and some two million died.<sup>26</sup> The legacy of Partition is still strong, ‘a nightmare from which the subcontinent has not yet fully recovered.’<sup>27</sup> The issue remains alive because of the dispute over Kashmir, which was divided into two by war in 1947–48. For both countries, possession of Kashmir has been critical to national identity. Pakistan sees itself as incomplete, with a Muslim-majority territory alienated from it, while India regards Kashmir as the symbol of its central principle of unity in diversity.<sup>28</sup> Recurring wars and crises have created an increasingly weighty memory of conflict. The war of 1947–48 was followed by fresh outbreaks in 1965 and in 1971. A major crisis that might have resulted in war occurred in 1986–87, when both countries stood at the

threshold of nuclear weaponisation. As nuclear powers, India and Pakistan have experienced repeated crises in 1990, 1999, 2001–02 and 2008–09.

The nuclear–strategic relationship between India and Pakistan has been widely covered and need not be recounted in detail.<sup>29</sup> Its pattern is similar to that seen in the other three cases referred to above, but with some important differences. The process of nuclearisation in the subcontinent was very gradual. As noted earlier, India achieved capability in 1974, but built the bomb some 15 years later. From the late 1980s to 1998, deterrence was implied, but recessed. Both sides had the capability; neither side knew what the other’s technical level was or how many bombs it had in its basement; but deterrence was nevertheless exercised, as neither could assume the other did not have the bomb in usable form. Thereafter and in stark contrast to the US–Soviet deterrence relationship, it remains recessed despite a series of crises.

### *Crises and Immediate Deterrence*

As in the case of Chinese fears vis-à-vis the United States and the Soviet Union, Pakistan was apprehensive of an Indian preventive attack and, later, of a pre-emptive attack.<sup>30</sup> But the acquisition of a nuclear deterrent also gave it the opportunity to adopt a more aggressive strategy by exerting sub-conventional pressure on India. Thus, the India–Pakistan relationship was marked by a familiar phenomenon – the ‘stability/instability paradox.’<sup>31</sup> Under the original formulation of this concept, because nuclear rivals cannot tolerate the potential cost of a nuclear war, conventional war becomes feasible. We have seen above that this is not the case. In all nuclear rivalries, states invariably avoid full-scale conventional war, though they may sometimes engage in marginal fighting. More accurately applied, the stability/instability paradox involves rising tensions and/or conflict at a level below that of full-scale conventional war, such as through marginal armed combat, as in the Sino–Soviet border conflict, and the backing of non-state actors fighting the adversary, as in the American backing of the mujahideen in Afghanistan. In the South Asian context, the stability/instability paradox appeared in both forms.<sup>32</sup> First, Pakistan began providing extensive backing to terrorist groups fighting India in Jammu and Kashmir.<sup>33</sup> Second, in 1999, Pakistan pushed the envelope further by sending troops in civilian garb to occupy Indian positions along the Line of

Control (LoC, the line dividing Kashmir between the two countries) that had been vacated for the winter in the region called Kargil.<sup>34</sup> In both cases, Pakistan was able to maximise this strategy because it was deniable – the official claim was that the incursions were undertaken by ‘freedom fighters.’<sup>35</sup> But this does not, as Varun Sahni claims, detract from the validity of the stability/instability paradox. Pakistan’s role in fomenting terrorist violence was publicly known early on.<sup>36</sup> The key point is that India felt frustrated, threatened to go to war, and did nothing.<sup>37</sup>

The first crisis under the shadow of a nuclearised relationship occurred over Kashmir in 1990, when India and Pakistan were still covert nuclear powers. Both sides mobilised forces, though in defensive configurations, but avoided war. The crisis underlined the low level at which deterrence occurs, for neither side was certain at the time that the other actually had the bomb. A second crisis took place over Pakistan’s incursions in Kargil in 1999. This time, fighting occurred over several weeks from May to July, but both exercised restraint at considerable cost. India refrained from crossing the LoC, though this hamstrung its use of air power and slowed down its counter-attack. Pakistan, still claiming that the intruders were ‘freedom fighters,’ did not back up its troops when they were forced to retreat. Both sides took care not to escalate, with neither deploying its forces in an offensive posture. In December 2001, a third and prolonged crisis broke out when terrorists attacked India’s Parliament and an angry India threatened limited war unless Pakistan abandoned its backing of cross-border terrorism.<sup>38</sup> Both sides mobilised fully along the entire border, adopted offensive postures and resorted to nuclear signalling by carrying out missile tests. The crisis eventually petered out, but left behind a sense of exhaustion. In 2008, following a major attack by Pakistan-based terrorists, which led to the killing of 166 citizens in Mumbai, a fresh crisis broke out, but this was a relatively minor one, though the possibility of war was in the air for some time.<sup>39</sup>

In each crisis, immediate deterrence was in place and, despite intense hostility, the leaderships on both sides were cautious. During and after every crisis the two sides cooperated tacitly by refraining from escalating to regular armed engagement, as opposed to harsh words and indirect signalling via such means as missile tests; and explicitly by talking to each other, sometimes with the help of third parties, mainly the United States. In every case, both sides respected the LoC/border as a red line. Though

Kargil was different in that armed combat did take place and Pakistan clearly did transgress the red line of the LoC, we know that this stopped short of a regular war because Pakistan held to the temporary fiction that its army was not involved at all. When the option to defend its military position in Kargil came down to the open use of its military, it backed away. Significantly, immediate deterrence worked repeatedly in a situation where neither country actively deployed its weapons. Though there have been occasional claims that one side or the other went on alert, none has been backed by evidence. As far as we know, Indian and Pakistani nuclear weapons remained in their normal non-deployed state, with the bombs kept separate from delivery vehicles. The fact that deterrence operates without visible deployment is a pointer to the minimal level at which a state may exercise deterrence and has important implications for current global efforts towards disarmament.

### ***Behaviour under General Deterrence***

As we have seen, the existence of a deterrence relationship does not prevent nuclear rivals from behaving conventionally in non-crisis periods. India and Pakistan are no exceptions. In the pre-nuclear era, their rivalry bore the characteristics of a strong power–weak power relationship.<sup>40</sup> India, by far the bigger power, displayed a classic strong power approach, stressing bilateral negotiations on all disputes (Kashmir was not the only one), arming itself so as to make it costly for Pakistan to catch up, calling for closer economic and cultural relations, and intervening in and breaking up Pakistan in 1971. It also drew close to the Soviet Union in the early 1970s to counter what it viewed as a Pakistan–US–China nexus. Pakistan’s approach was typical of relatively weak powers. It tried consistently to internationalise the Kashmir dispute, sought political and military assistance from larger powers (the United States and China), periodically undertook low-level (and deniable) intervention in Indian domestic conflicts, and avoided extensive economic and cultural relations with India. Above all, it sought the ultimate guarantee of security – the possession of nuclear weapons.<sup>41</sup> Both engaged in arms competition and vied for influence in Afghanistan. The wars and crises that erupted regularly were symptomatic of an enduring rivalry that was bound to run headlong into the complexities produced by nuclear weapons.<sup>42</sup>

But in the nuclear era, when Pakistan has effectively equalised its military power with India by virtue of having obtained nuclear weapons, much remains unchanged. The nuclear doctrines of the two countries are redolent of conventional thinking, not least because they draw their basic concepts from American nuclear doctrine.<sup>43</sup> Thus, the South Asian nuclear–strategic discourse takes as central Wohlstetter’s notion that assured second-strike capability is a prerequisite for obtaining sound deterrence and strategic stability. Arms racing is evident as each seeks to develop a wider range of missile capabilities.<sup>44</sup> India continues to develop a variety of nuclear weapons systems, including a nuclear triad of air-, land- and sea-based weapons, and to augment its conventional forces without a clear sense of their utility in a nuclear context (both its military adversaries, China and Pakistan, possess nuclear weapons). Pakistan, similarly pursuing enhanced nuclear capabilities, talks about regional military ‘imbalance’ and continues to depend on assistance from China and the United States to build its conventional military strength. Thus, despite the experience that nuclear deterrence works with minimal capability, the nuclear strategies of the two countries are open-ended with respect to the quality and numbers of weapons considered necessary for effective deterrence. In this respect, the India–Pakistan nuclear rivalry parallels the US–Soviet one.

## **Insights from a Comparative Analysis**

Although the ‘dataset’ is very limited, we can nevertheless draw some useful conclusions from the comparative perspective employed here. First, the comparison of nuclear rivalries tells us that the India–Pakistan relationship is not exceptional. Rather, it displays behaviour patterns characteristic of all nuclear rivalries. These may be outlined as follows:

- Like all other similar relationships, India and Pakistan have displayed an early propensity for crisis and brinkmanship arising from heightened threat perceptions and the employment of coercive strategies.
- Under conditions of immediate deterrence, with the threat of war looming, they have – like the others – shown a standard pattern of behaviour:

- a. the exercise of immense caution in order to avoid war, including full-scale conventional war; and
  - b. a disregard for the tenets of conventional military and political thinking, which places a premium on relative capabilities, and an equal disregard for nuclear doctrine, which rests on bedrock assumptions about second-strike capability that drive the acquisition of weapons systems.
- In non-crisis times, under conditions of general deterrence, India and Pakistan, like other nuclear rival pairs, have experienced – and in some ways succumbed to – the powerful pull of conventional thinking, which places a premium on conventionally oriented doctrine and encourages the acquisition of more and better weapons, as well as the resort to alliance-building and other forms of balance of power behaviour in the pursuit of security.

All of this indicates that there are lessons to be learned – for India and Pakistan, but for other nuclear rivals as well. First, in the present context, India and Pakistan need to appreciate that their investment in diverse capabilities has no prospect of offering returns in terms of enhanced security. On the contrary, arms racing produces insecurity and diverts scarce resources away from public welfare objectives.

Second, the comparison shows that in one respect, the three non-South Asian nuclear rivalries showed different patterns in their process. The US–Soviet rivalry was marked by periodic crises; the US–China relationship did not actually witness any crisis (despite the running tension over Vietnam and even the occurrence of marginal armed combat there); and the Soviet Union and China distanced themselves from each other after a single crisis. The India–Pakistan relationship clearly follows the first pattern, which is far more risk-acceptant than the other two. The point is simply that the India–Pakistan pattern may be seen as a choice from at least three options. Other options are open and – pending resolution of the conflict – can be worked towards in order to reduce the risk of war. In particular, given the preference for nuclear-strategic equilibrium on both sides, a policy of prudent nonconfrontation of the kind practised by the Soviet Union and China for two decades between 1969 and the end of the Cold War would be optimal. That, however, is predicated upon political restraint being exercised by both, especially Pakistan, the revisionist power. On the face of it, it may

seem unrealistic to expect a revisionist power not to challenge the status quo. But history offers useful lessons. Attempts to alter the status quo between nuclear rivalries tend to engender crises, as with Khrushchev's move to place missiles in Cuba and with Mao's brinkmanship on the Soviet border in March 1969. Both initiatives produced crises and no gain for the initiator. In the India–Pakistan case, former President Musharraf has asserted that Pakistani sub-conventional pressure – the Kargil intrusion – led to a 'big success' in changing India's attitude on Kashmir.<sup>45</sup> In practice, it is hard to see what concrete 'gains' Pakistan made from the event, given its policy of wrenching all of Kashmir from India.

Third, in a critical respect, the India–Pakistan case is very different from the other rivalries discussed above, for in this instance nuclear weapons are not kept in a high state of readiness. This difference is important because it demonstrates that nuclear deterrence works at a very low level of capability, i.e. with small forces that are not actively deployed.<sup>46</sup> This has five major advantages:

- a. a non-deployed posture is less threatening and hence more stable than one in which weapons are in an advanced state of readiness;
- b. non-deployed forces provide a strong element of stability by lengthening the time for considered reflection before a decision to utilise nuclear weapons;
- c. non-deployment minimises the risk of nuclear weapons being targeted by terrorists;
- d. a non-deployed posture keeps the risk of unauthorised launch low; and
- e. successful deterrence with small, non-deployed weapons points the way to deep cuts in nuclear weapons by the big nuclear powers by undercutting the standard argument of critics that 'credible' deterrence requires large, diverse and visible forces.

Fourth, in all cases a third party has played a significant role in the rivalry. In the Cold War, North Korea initiated the Korean War. The triangular politics among the United States, the Soviet Union and China, which had a bearing on each of the nuclear rivalries of the time, is well known and need not be elaborated on here.<sup>47</sup> The same phenomenon can be found in the India–Pakistan relationship. China has played an aggravating role by

backing the development of Pakistan's nuclear capabilities.<sup>48</sup> The United States has in general played the role of a stabiliser, though in the past it has – ironically, but inadvertently – had a destabilising effect. Indeed, both Pakistan (in 1999) and India (in 2001–02) initiated a crisis to *invite* US intervention on their respective behalves, though with limited success.<sup>49</sup> However, that phase seems to have receded and the US role now is mainly one of pouring oil on the region's troubled nuclear waters. But this is easier said than done. The United States, relying on the Pakistani state for the conduct of the 'war against terror' in Afghanistan and Pakistan, is finding it difficult to restrain the Pakistani military from backing terrorists active in India.

Fifth, the comparison shows that – with India and Pakistan as much as with others – a key problem lies in the disjuncture between (nuclear-) revolutionary thinking and behaviour under immediate deterrence and conventional thinking and behaviour under general deterrence. Decision-makers have learned what is not viable in a nuclear weapons environment; but they have yet to learn what is optimal. So long as the problem is not resolved, there is significant potential for things to go wrong. Thus, for instance, conventional thinking encourages:

- a. the acquisition of superfluous capabilities, which may lead to arms racing (as in the US–Soviet and India–Pakistan cases);
- b. the adoption of offensive strategic postures with high risk potential during crises (the US–Soviet and Sino–Soviet cases); and
- c. the espousal of military strategies that conceive of (and make material preparations for) limited conventional war as a viable option.

India and Pakistan have travelled some way, though not very far, down the first road. Given their unclear understanding of the workings and fundamental principles of minimum deterrence, there remains the risk that they might travel down all three.

In the India–Pakistan rivalry, it is evident, there is a bed of safety on which the nuclear–strategic relationship rests. Both countries have to date adhered to non-deployed postures. Yet the fact that they continue to develop a range of superfluous capabilities is a cause for concern, at least pending a broader political resolution. I have shown elsewhere that Indian and Pakistani doctrine leans heavily on American principles that are conducive



to the building of large forces and completely in contradiction to the historical experience of all nuclear rivalries.<sup>50</sup> Failure to reformulate their thinking in accordance with their experience (and that of others) could lead the subcontinental rivals to, at best, wastage of resources as a result of arms racing and, at worst, a shift to maximalist deterrence: a doctrine of mutual assured destruction (or something like it), large forces on hair-trigger alert and more crises. At the other end of the spectrum, India and Pakistan could rework their doctrines to fit the historical experience of all nuclear rivalries, sustain their non-deployed postures, minimise their acquisitions and become models for other nuclear powers. Ideally, the two countries should resolve their long-standing dispute over Kashmir and get on with the business of developing their citizens' welfare. In the interim, a more thorough and consistent approach to minimum deterrence is needed.

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1 Sumit Ganguly, 'Nuclear Stability in South Asia,' *International Security*, vol. 33, no. 2 (Fall 2008), pp. 45–70; S. Paul Kapur, 'Ten Years of Instability in a Nuclear South Asia,' *International Security*, vol. 33, no. 2 (Fall 2008), pp. 71–94; Michael Krepon, 'Looking Back: The 1998 Indian and Pakistani Nuclear Tests,' *Arms Control Today* (May 2008). Available at <http://www.armscontrol.org/act>; Bruce Riedel, 'South Asia's Nuclear Decade,' *Survival*, vol. 50, no. 2 (April–May 2008), pp. 107–26.

2 K. Subrahmanyam, 'Indian Nuclear Policy, 1964–98 (A Personal Recollection),' in Jasjit Singh, ed., *Nuclear India* (New Delhi: Knowledge World, 1998), p. 44; Raj Chengappa, *Weapons of Peace* (New Delhi: HarperCollins, 2000), pp. 332–6.

3 Carey Sublette, *Pakistan's Nuclear Weapons Programme Development*, Nuclear Weapons Archive, 2 January 2002. Available at <http://nuclearweaponarchive.org>. The exact date is not clear: the available evidence shows that Pakistan had conducted successful 'cold tests' somewhere between 1983 and 1985.

4 The debate is best captured in Scott D. Sagan and Kenneth N. Waltz, *The Spread of Nuclear Weapons: A Debate Renewed* (New York and London: W.W. Norton, 2003), which carries the optimist/pessimist debate from a general perspective and also looks specifically at South Asia. The papers by Ganguly and Kapur in n. 1 are extensions of the debate.

5 I define a 'nuclear rivalry' as an enduring confrontation between two nuclear-armed states. A more detailed discussion of hostile nuclear pairs can be found in Rajesh M. Basrur, *South Asia's Cold War: Nuclear Weapons and Conflict in Comparative Perspective* (Abingdon, Oxford and New York: Routledge, 2008). There is, to my knowledge, no comprehensive comparative work on nuclear rivalries. Considerable work has been on enduring inter-state rivalries in general. See, e.g., Paul Diehl, ed., *The Dynamics of Enduring Rivalries* (Urbana and Chicago: University of Illinois Press, 1998); Paul Diehl and Gary Goertz, *War and Peace in International Rivalry* (Ann Arbor: University of Michigan Press, 2001); Zeev Maoz and Ben Mor, *Bound by Struggle: The Strategic Evolution of Enduring International Rivalries* (Ann Arbor: University of Michigan Press, 2002).

6 Albert Wohlstetter, 'The Delicate Balance of Terror,' *Foreign Affairs*, vol. 37, no. 2 (January 1959), pp. 211–34; P.M.S. Blackett, *Studies of War: Nuclear and Conventional* (Westport, CT: Greenwood Press, 1962).

7 Arguably, fear of sanctions may explain the preference for a 'recessed' posture. But this does not apply to the dozen years after the 1998 tests, or for that matter to Indira Gandhi's decision to not even build an arsenal after 1974. Pakistan's posture has mirrored India's. It bears noting that China has also retained the posture of unassembled weapons. See Jeffrey Lewis, *The Minimum Means of Retaliation: China's Search for Security in the Nuclear Age* (Cambridge, MA: MIT Press, 2007).

8 Bennett Ramberg, *Nuclear Power Plants as Weapons for the Enemy: An Unrecognized Peril* (Berkeley, CA: University of California Press, 1980).

9 On recessed deterrence, see Jasjit Singh, 'India's Nuclear Policy: The Year After,' *Strategic Analysis*, vol. 23, no. 4 (July 1999), pp. 509–30. The concept of 'opaque' proliferation enunciated by Devin Hagerty is closely connected. See Devin T. Hagerty, 'The Power of Suggestion: Opaque Proliferation, Existential Deterrence and the South Asian Nuclear Arms Competition,' *Security Studies*, vol. 2, nos. 3–4 (September 1993), pp. 256–83.

10 For standard theoretical expositions of the realist perspective, see Kenneth N. Waltz, *Theory of International Politics* (Reading, MA: Addison-Wesley, 1979); and Robert Gilpin, *War and Change in World Politics* (New York: Cambridge University Press, 1981).

11 Most writings on interdependence tend to focus on economic relationships, but the essential principle is the same. For a classic work on the effects of inter-state interdependence, see Robert O.

Keohane and Joseph S. Nye, *Power and Interdependence*, 3rd edition (New York: Longman, 2000).

12 Benjamin Miller, *When Opponents Cooperate: Great Power Conflict and Collaboration in World Politics* (Ann Arbor, MI: University of Michigan Press, 2002).

13 On the Berlin confrontation, see Raymond L. Garthoff, 'Berlin 1961: The Record Corrected,' *Foreign Policy*, No. 84 (Fall 1984), pp. 142–56. On the Cuban Missile Crisis, see Don Munton and David A. Welch, *The Cuban Missile Crisis: A Concise History* (Oxford: Oxford University Press, 2007). On the US–China confrontation, see Chen Jian, *Mao's China and the Cold War* (Chapel Hill, NC and London: University of North Carolina Press, 2001), pp. 225–6; and John G. Stoessinger, *Nations at Dawn: China, Russia and America* (New York: McGraw-Hill, 1994), pp. 83–84. On the Sino–Soviet conflict, see Thomas W. Robinson, 'The Sino–Soviet Border Conflict,' in Stephen S. Kaplan, ed., *Diplomacy and Power: Soviet Armed Forces As A Political Instrument* (Washington, DC: Brookings Institution, 1981); and Thomas W. Robinson, 'The Sino–Soviet Border Conflict of 1969: New Evidence Three Decades Later,' in Mark A. Ryan, David Michael Finkelstein and Michael A. McDevitt, eds., *Chinese Warfighting: The PLA Experience since 1949* (Armonk, NY: M. E. Sharpe, 2003).

14 This parallels Patrick Morgan's conceptual distinction between 'immediate deterrence' and 'general deterrence.' Patrick M. Morgan, *Deterrence Now* (Cambridge: Cambridge University Press, 2003).

15 Well after the crisis, in 1965, the US possessed 5,500 strategic nuclear warheads, the Soviet Union only 600. Grant T. Hammond, *Plowshares into Swords: Arms Races in International Politics, 1840–1991* (Columbia, NC: University of North Carolina Press, 1993), Table, pp. 226–7.

16 Some aspects of this are discussed in Robert Jervis, *Meaning of the Nuclear Revolution* (Ithaca, NY: Cornell University Press, 1989), pp. 174–225. For a critical understanding of the differences between nuclear and conventional deterrence, see Kenneth N. Waltz, 'Nuclear Myths and Political Realities,' *American Political Science Review*, vol. 84, no. 3 (September 1990), pp. 731–45.

17 Barry O'Neill, *Honor, Symbols and War* (Ann Arbor, MI: University of Michigan Press, 1999), pp. 215–38.

18 Hammond, *Plowshares into Swords*, Table, pp. 226–7.

19 Alastair Iain Johnston, 'China's New "Old Thinking:" The Concept of Limited Deterrence,' *International Security*, vol. 20, no. 3 (Winter 1995/96), pp. 5–42.

20 On American nuclear thinking, see Charles L. Glaser, *Analyzing Strategic Nuclear Policy* (Princeton, NJ: Princeton University Press, 1990). On Soviet thinking, see Andrei A. Kokoshin, *Soviet Strategic Thought* (Cambridge, MA and London: MIT Press, 1998). On Russia, see Nikolai Sokov, 'Russian Ministry of Defense's New Policy Paper: The Nuclear Angle,' *CNS Reports*, Centre for Nonproliferation Studies, Monterey Institute of International Studies, Monterey, CA, n.d. Available at <http://cns.miis.edu/pubs/> [accessed 26 October 2003]. On Britain, France and China, see Avery Goldstein, *Deterrence and Security in the 21st Century: China, Britain, France, and the Enduring Legacy of the Nuclear Revolution* (Stanford, CA: Stanford University Press, 2000). On India and Pakistan, see Basrur, *South Asia's Cold War*, pp. 63–71.

21 The problem is in a fundamental way intrinsic to nuclear weapons – their possessors seek to avoid using them, yet the weapons would not deter if they were not usable.

22 The distinction between preventive and pre-emptive strikes may be clarified here. A preventive strike seeks to prevent an adversary from acquiring nuclear capability; a pre-emptive strike to attack first in order to minimise the threat potential of a nuclear adversary.

23 William Burr and Jeffrey T. Richelson, 'Whether to Strangle the Baby in the Cradle: The United States and the Chinese Nuclear Program,' *International Security*, vol. 25, no. 3 (Winter 2000–2001), pp. 54–99.

24 David E. Sanger and Mark Mazzetti, 'Israel Struck Syrian Nuclear Project, Analysts Say,' *New York Times*, 14 October 2007. Available at <http://www.nytimes.com>.

25 Sumit Ganguly, *Conflict Unending: India–Pakistan Tensions since 1947* (New Delhi: Oxford University Press, 2002).

26 Ishtiaq Ahmed, 'The 1947 Partition of India: A Paradigm for Pathological Politics in India and Pakistan,' *Asian Ethnicity*, vol. 3, no. 1 (March 2002), p. 9.

27 Sugata Bose and Ayesha Jalal, *Modern South Asia: History, Culture, Political Economy*, 2nd edition (London and New York: Routledge, 2004), p. 164.

28 Ashutosh Varshney, 'India, Pakistan, and Kashmir: Antinomies of Nationalism,' *Asian Survey*, vol. 31, no. 11 (November 1991), pp. 1001–1002.

29 P.R. Chari, Pervaiz Iqbal Cheema and Stephen P. Cohen, *Four Crises and A Peace Process: American Engagement in South Asia* (Washington, DC: Brookings Institution Press, 2007); Sumit Ganguly and Devin T. Hagerty, *Fearful Symmetry: India–Pakistan Crises in the Shadow of Nuclear Weapons* (New Delhi: Oxford University Press, 2005); Paul S. Kapur, *Dangerous Deterrent: Nuclear Weapons Proliferation and Conflict in South Asia* (Stanford, CA: Stanford University Press, 2007). On the 2008–09 crisis, see Rajesh Basrur, Timothy Hoyt, Rifaat Hussain and Sujoyini Mandal, *The Mumbai Terrorist Attacks: Strategic Fallout* (Singapore: S. Rajaratnam School of International Studies, Nanyang Technological University, 2009).

30 Owen Bennett Jones, *Pakistan: Eye of the Storm* (New Haven, CT and London: Yale University Press, 2002), p. 215; Ganguly and Hagerty, *Fearful Symmetry*, pp. 57–58, 187–90.

31 Glen Snyder, 'The Balance of Power and the Balance of Terror,' in Paul Seabury, ed. *The Balance of Power* (San Francisco, CA: Chandler, 1965), pp. 194–201.

32 See Michael Krepon and Chris Gagné, eds., *The Stability–Instability Paradox: Nuclear Weapons and Brinkmanship in South Asia* (Washington, DC: Henry L. Stimson Centre, June 2001). Though the events of 1999 are frequently treated as a 'war,' I concur with V.R. Raghavan, a former Director-General of Military Operations with the Indian Army, that Kargil was not so much a war as 'a series of local military actions ... to clear Indian territory of intruders.' V.R. Raghavan, 'Limited War and Strategic Liability,' *The Hindu*, 2 February 2000. Available at <http://www.hinduonnet.com>.

33 Peter Chalk, 'Pakistan's Role in the Kashmir Insurgency,' *Jane's Intelligence Review*, 1 September 2001, reproduced on the website of the RAND Corporation. Available at <http://www.rand.org>; Jennifer Lynn Oetken, 'Transformation of Kashmir's Insurgency: *Azaadi to Global Salafi*,' in Jaideep Saikia and Ekaterina Stepanova, eds., *Terrorism: Patterns of Internationalization* (New Delhi: Sage, 2009). In July 2009, Pakistani President Asif Ali Zardari admitted that previous governments had 'deliberately created and nurtured' terrorist groups as a policy for 'short-term tactical objectives.' Nirupama Subramanian, 'Pakistan Admits to Creating Militant Groups,' *The Hindu*, 9 July 2009. Available at <http://www.hinduonnet.com>. In fairness, it must be admitted that Pakistan had used a similar strategy without the benefit of a nuclear shield in the early to mid-1980s, when India's Punjab state was wracked by a violent secessionist movement.

34 Musharraf admitted as much in an interview with an Indian newspaper in July 2009. See 'Seeing A Watershed in Kargil,' *The Hindu*, 25 July 2009. Available at <http://www.hinduonnet.com>.

35 Varun Sahni, 'The Stability–Instability Paradox: A Less than Perfect Explanation,' in E. Sridharan, ed., *The India–Pakistan Nuclear Relationship: Theories of Deterrence and International Relations* (New Delhi and Abingdon, Oxford: Routledge, 2007), pp. 201–202.

36 Chalk, 'Pakistan's Role in the Kashmir Insurgency.'

37 Sahni, 'The Stability–Instability Paradox' (pp. 200–201), claims India was unable to respond adequately to Pakistani pressure because it would have had to escalate the confrontation and thus risk war. He does not note, however, that India did have a *symmetrical* option that it chose not to exercise: that of paying Pakistan back in the same coin – by means of an equally deniable support for

insurgency in that country. Ironically, this is precisely what Pakistan began to accuse India of doing when terrorist violence became rife in its own territory. See, e.g., 'India Destabilizing Balochistan: IGP,' *News International*, 26 May 2009. Available at <http://www.thenews.com.pk/>; 'India Supporting Terror Attacks in Punjab: Sanaullah,' *Daily Times*, 22 July 2009. Available at <http://www.dailytimes.com.pk/>.

38 Rajesh M. Basrur, 'Coercive Diplomacy in A Nuclear Environment: The December 13 Crisis,' in Rafiq Dossani and Henry Rowen, eds., *Prospects for Peace in South Asia* (Stanford, CA: Stanford University Press, 2005); Sumit Ganguly and R. Harrison Wagner, 'India and Pakistan: Bargaining in the Shadow of Nuclear War,' *Journal of Strategic Studies*, vol. 27, no. 3 (September 2004), pp. 479–507.

39 Basrur et al., *Mumbai Terrorist Attacks*.

40 The pattern of strong state–weak state relations is best illustrated in Michael Mandelbaum, *The Fate of Nations* (New York: Cambridge University Press, 1988).

41 On the development of Pakistan's nuclear capability, see Bhumitra Chakma, *Pakistan's Nuclear Weapons* (Abingdon, Oxford and New York: Routledge, 2009).

42 T.V. Paul, ed., *The India–Pakistan Conflict: An Enduring Rivalry* (Cambridge: Cambridge University Press, 2005).

43 Basrur, *South Asia's Cold War*, Chapter 4.

44 'India's Nuclear Forces, 2008,' *Bulletin of the Atomic Scientists*, vol. 64, no. 5 (November/December 2008), pp. 38–40; and 'Pakistan's Nuclear Forces, 2009,' *Bulletin of the Atomic Scientists*, vol. 65, no. 5 (September/October 2009), pp. 82–89.

45 'Seeing A Watershed in Kargil,' *The Hindu*, 25 July 2009. Available at <http://www.thehindu.com>.

46 In at least one other case – that of North Korea – it can be argued that a very small, non-deployed force on one side works towards a relationship of effective mutual deterrence.

47 Stoessinger, *Nations at Dawn*.

48 T.V. Paul, 'Chinese–Pakistani Missile Ties and the Balance of Power,' *Nonproliferation Review*, vol. 10, no. 2 (Summer 2003), pp. 1–9.

49 Rajesh M. Basrur, *Minimum Deterrence and India's Nuclear Security* (Stanford, CA: Stanford University Press, 2006), Chapter 4.

50 Basrur, *Minimum Deterrence and India's Nuclear Security*, Chapter 2; Rajesh M. Basrur, 'Nuclear Deterrence Thinking in Pakistan,' Paper presented at the 5th Workshop on 'International Relations Theory and South Asia,' University of Pennsylvania Institute for the Advanced Study of India, New Delhi, March 27–29, 2006.

## Chapter 2

# The Road from Pokhran II<sup>1</sup>

Sumit Ganguly

### Introduction

On May 11 and 13 1998 India tested a set of five nuclear devices at its test site at Pokhran in the western Indian state of Rajasthan. The origins of the Indian test have been discussed at length elsewhere.<sup>2</sup> In the aftermath of the Indian tests, the country's National Security Advisory Board unveiled a draft nuclear doctrine. Most of the features of the draft doctrine were unexceptional and largely echoed well-established propositions of nuclear deterrence theory. The key element of the doctrine, however, was its call to develop a 'credible minimum deterrent' based upon a strategic triad of long-range bombers, land-based ballistic missiles and submarine-launched ballistic missiles.

India has made substantial progress towards the acquisition of such capabilities. However, important lacunae still remain in its quest to acquire a robust nuclear deterrent against both Pakistan and the People's Republic of China (PRC). This analysis seeks to identify the progress that has been made, focus on the factors that continue to drive these programmes, discuss the limitations of India's extant nuclear weapons capabilities and identify future challenges that India is likely to face as it strives to fashion a nuclear force capable of safeguarding its strategic interests.

India had first crossed the nuclear Rubicon as early as 1974.<sup>3</sup> In the wake of the test, a host of factors at international, domestic and decision-making levels had inhibited it from acquiring the necessary wherewithal for a viable nuclear arsenal. It is beyond the scope this analysis to discuss the reasons for India's failures to follow through with the necessary investments to acquire a nuclear deterrent.<sup>4</sup> However, there is some evidence that the nuclear weapons programme received a boost in around 1989 under Prime

Minister Rajiv Gandhi. Two explanations are generally adduced for his decision to renew the programme. One argument holds that he chose to resurrect the programme because of the utter lack of global interest in his Action Plan for a time-bound strategy to rid the world of nuclear weapons. The other argument holds that he chose to do so because of Indian intelligence reports that underscored a dramatic growth in Pakistan's nuclear weapons capabilities thanks to assistance from the PRC.<sup>5</sup> In any event, India was ready to carry out a set of nuclear tests in December 1995. However, successful US detection of the preparations for the tests induced the Narasimha Rao government to call them off.<sup>6</sup>

However, the nuclear weapons programme continued and the Bharatiya Janata Party (BJP)-led National Democratic Alliance (NDA) government chose to conduct tests in May 1998. In the aftermath of the tests, despite a raft of international sanctions, many of which have been lifted, the Indian nuclear and ballistic missile programmes have proceeded apace. Even the change of regime in 2004 did not fundamentally alter the course of these programmes. What, then are the key components of the Indian arsenal?

## **The State of the Arsenal**

The Indian nuclear arsenal, in its present form, has three components, only one of which may be deemed fully operational. The first is composed of a fleet of nuclear-capable, long-range bombers. These are composed of Mirage 2000H multi-role, Jaguar IS fighter-bombers, Mig-27 and Sukhoi-30MKI aircraft, all of which have been reportedly been suitably modified to carry nuclear payloads.

The second leg is composed of a range of indigenously developed, land-based ballistic missiles. India's state-owned Defence Research and Development Organization (DRDO) has been responsible for these missiles. The first, of course, remains the *Prithvi I*, a single-stage, road-mobile and liquid-fuelled missile which can deliver a 1,000 kilogram warhead. Given its limited range of only 150 kilometres, it would be mostly useful against targets in Pakistan. Subsequently, the defence scientific establishment developed the *Prithvi II*. It entered into service with the Indian Air Force (IAF) in 2004 and the Indian Army in 2006. A third short-

range, solid-fuel missile, with improved range, accuracy and handling features, the *Prithvi III*, is under development.

In addition to this cohort, India has also been developing the *Agni* series of missiles. The *Agni I* is a single-stage, solid-fuel missile that is capable of delivering a 1,000-kilogram warhead and has a maximum range of about 800 kilometres. The two-stage *Agni II* is capable of delivering a similar payload to a range varying between 2,000 and 2,500 kilometres.<sup>7</sup> In February of 2010, the country successfully flight-tested the *Agni III*. The missile is believed to have a range of 3,500 kilometres.<sup>8</sup> It is now in the process of developing another missile, the *Agni V*, which will have a range of 5,000 kilometres. Obviously, this missile is designed to be able to strike the Chinese heartland. Additionally, it is believed that the DRDO is also at work on the acquisition of multiple independently targetable re-entry vehicles (MIRV) warheads for the *Agni* missiles.<sup>9</sup> The DRDO hopes to test launch the *Agni V* in 2011.<sup>10</sup> Finally, it is also making modest progress towards the acquisition of multiple re-entry independently targetable vehicles (MIRV).<sup>11</sup>

The third component, nuclear-capable submarines, is still in an extremely incipient stage. Thus far, India has had the first successful sea trial of an indigenously built nuclear submarine, the *INS Arihant*, which was formally launched in July 2009. However, the submarine still lacks the missiles that would enable it to be actually deployed and is in the midst of undergoing a range of sea trials to test the viability of its nuclear reactor.<sup>12</sup> The missile capabilities of India's nuclear submarine programme also remain at a rudimentary stage. The DRDO has, thus far, tested the *Sagarika* (also referred to as the K-15), a sea-launched, solid-fuel missile that can carry a payload of 600 kilograms and has a range of approximately 700 kilometres.<sup>13</sup>

The country has also leased a Russian *Akula*-class submarine for the duration of a decade. The submarine, despite an accident during a sea trial, will be delivered to the Indian Navy soon. Once in the service of the Indian Navy, it will be christened the *INS Chakra* and provide training for Indian submariners in the handling of a nuclear-powered submarine.<sup>14</sup> (India had previously leased a Soviet-era nuclear submarine in the 1980s.)

### ***Nuclear Command and Control***



Since the nuclear tests and the subsequent announcement of a nuclear doctrine, in 2003, India has created a National Command Authority (NCA) and a Strategic Forces Command (SFC) following a directive from the Cabinet Committee on Security (CCS). The NCA, was to be composed of a Political Council and an Executive Council. The Prime Minister was to chair the first and the National Security Adviser, the second.<sup>15</sup> A senior Indian Air Force (IAF) officer, Air Marshal Teja Mohan Asthana, was appointed as the first head of this new command.<sup>16</sup> Information about the workings of India's command and control capabilities are scarce in the public domain.<sup>17</sup> However, according to an Indian analyst who has long worked on nuclear and security issues, steps are under way to create a formal chain of command for the employment and use of nuclear weapons.<sup>18</sup>

## **Coping with Threats**

Since India's acquisition of an overt nuclear weapons capability in 1998, its threat environment has not dramatically changed. The long-standing differences with Pakistan over the Kashmir question remain unchanged.<sup>19</sup> Also, despite a series of negotiations on the Sino-Indian border dispute, the two sides have made pitifully little progress towards its resolution.<sup>20</sup> Furthermore, Pakistan and China have continued to modernise their nuclear arsenals and China's presence in the Indian Ocean has increased.<sup>21</sup> Beyond these developments, India does not face any new threat that its nuclear arsenal could usefully deter. However, the country remains acutely vulnerable to various sub-conventional and asymmetric war strategies. Despite multiple attempts at rapprochement, the two sides remain far apart on any meaningful approach towards the resolution of the long-standing Kashmir dispute. Most importantly, despite a legion of domestic difficulties, no regime in Pakistan seems interested in abandoning its claim to Kashmir. Given India's significant conventional superiority, Pakistan has resorted to the use of a host of proxy forces to wage war on India.<sup>22</sup>

In this context, two episodes, in particular, need to be highlighted.<sup>23</sup> The first involved the 13 December 2001 terrorist attack on the Indian parliament, in which members of two Pakistan-based terrorist organisations, the Jaish-e-Mohammed (JeM) and the Lashkar-e-Taiba (LeT), were

implicated. In the aftermath of the attack India embarked on a massive exercise in coercive diplomacy designed to induce Pakistan to prevent future attacks and also to terminate its support for such terrorist organisations. In the end, this exercise proved to be mostly futile despite some public promises from Pakistani authorities.<sup>24</sup> The second episode involved the LeT attack on 26 November 2009 on the city of Bombay (Mumbai).<sup>25</sup> Once again, despite the brazenness, as well as the seriousness, of the attack and the clear links that were established to Pakistan, India failed to undertake any retaliatory military action. Despite the possibility of escalation it remains far from clear that such Indian restraint will again obtain in the event of a similar attack if the antecedents thereof are traced back to Pakistani soil.

India's defence establishment has yet to formulate an effective doctrine and strategy to either deter or effectively retaliate against such sub-conventional threats.<sup>26</sup> Thus while nuclear weapons have effectively ruled out the possibility of full-scale war in the region thanks to the possibility of an escalatory spiral, it is entirely possible that further Pakistan-based terrorist attacks (with or without official sponsorship) may lead India to resort to conventional retaliation.<sup>27</sup>

On another front, despite public professions of amity from New Delhi, India's armed forces remain acutely concerned about the Chinese People's Liberation Army (PLA) activities along the disputed Sino-Indian border. In the past two years Indian authorities claim that the PLA has made a series of minor incursions along the Himalayan border. Additionally, they are acutely concerned about the infrastructure improvements that the PRC has made along the disputed border. From the perspective of Indian military analysts, such developments impinge of India's long-term security concerns, as they will dramatically enhance the mobility and manoeuvrability of PLA forces in the event of a future conflict. Not surprisingly, India has moved to bolster its own capabilities in the area. To that end, it has recently constructed a forward air base in Tezpur and has reportedly moved a squadron of Sukhoi-30 aircraft to the base. It has also stepped up its vigilance along the border and has embarked upon its own efforts to improve regional infrastructure.<sup>28</sup>

There is little question that the PRC's acquisition of nuclear weapons in 1964 precipitated the Indian nuclear weapons programme in 1966.<sup>29</sup> Nevertheless, it is hard to visualise how a nuclear crisis might ensue on the

Sino–Indian border. Instead as the Indian scholar–diplomat, Sisir Gupta, long argued, in the absence of a viable Indian nuclear weapons capability, it could subject India to nuclear blackmail.<sup>30</sup> Consequently, India will need to maintain robust conventional capabilities along the Himalayan border to both deter and defend against Chinese incursions and also possess adequate nuclear capabilities to avoid nuclear coercion.

### *Choices and Challenges*

A number of critical challenges and choices confront India's policymakers as they work towards the construction of a viable nuclear deterrent. Five of these loom large. The first deals with the viability of the arsenal itself. Almost immediately after the tests of 1998 Prime Minister Atal Behari Vajpayee declared a self-imposed moratorium on any further nuclear tests. Subsequently, prime ministers have reaffirmed that pledge. More to the point, India would stand to jeopardise the carefully negotiated US–Indian civilian nuclear agreement of 2008, were it to resume nuclear tests.

Yet questions do linger about the reliability of the Indian nuclear arsenal, especially when it comes to its thermonuclear dimensions. The issue erupted when one of the key scientists associated with the programme, K. Santhanam, questioned the stated yield of the thermonuclear weapon at a seminar in New Delhi in August 2009.<sup>31</sup> Not surprisingly, members of the Indian atomic energy establishment promptly challenged his claims and asserted that they steadfastly stood by their own assessments of the professed yield of the thermonuclear device.<sup>32</sup>

It is beyond the scope of this chapter to assess the veracity of the competing assertions. That said, the larger question remains. Can the Indian defence establishment repose sufficient faith in the designs of its nuclear (let alone thermonuclear) weapons on the basis of six tests? Alternatively, can they still test components of these weapons to ensure their viability and reliability? Also, will such tests adequately reassure the military establishment, who need to count on the capabilities of these weapons? There are no clear-cut, obvious answers to these questions. However, they are precisely the issues that India's policymakers will have to address if they wish to field a viable nuclear deterrent. Additionally, the issue will assume even greater significance as India faces growing pressures in the future to accede to a Comprehensive Test Ban Treaty (CTBT).

A second issue deals with India's inability to fashion a working triad well over a decade after its nuclear tests. Can the possession of a finite number of aircraft capable of delivering gravity-launched nuclear weapons constitute an adequate deterrent against both Pakistan and the PRC? Bombers, unless they are placed in secure and camouflaged revetments, are vulnerable to a pre-emptive strike. Yet bombers appear to be the only component of India's nuclear arsenal that is close to achieving operational status.

A third important question related to its nuclear deterrent also dogs India's defence policy establishment. This issue involves India's quest to acquire anti-ballistic missile capabilities. It has sought to acquire them to thwart Pakistan's ability to impose costs on India through the pursuit of an asymmetric war strategy; such a missile shield, even if moderately effective, in conjunction with a robust air defence network, could significantly degrade Pakistan's missile and air penetration capabilities.<sup>33</sup> Thus, if Pakistan threatened to resort to nuclear weapons when faced with an Indian military response to its continued provocations through the use of proxy forces, India could rely on its BMD capabilities to absorb a Pakistani nuclear attack. It could then strike Pakistan with its much larger (and survivable) nuclear forces. Though seemingly attractive, this scenario is fraught with many dangers and may well create a security dilemma for Pakistan. India's attempts to protect itself may well lead Pakistan to believe that its adversary was simply seeking to bolster its offensive capabilities.<sup>34</sup>

The Indian frustrations and attempts to cope with Pakistan's feckless behaviour through a technological leap are entirely understandable. However, it is far from clear that the pursuit of a ballistic missile defence programme is a viable panacea for the genuine strategic dilemma that Pakistan's asymmetric war strategy presents. Instead, the Indian acquisition of BMD capabilities may have perverse effects on strategic stability in the region. The Pakistani military establishment may fear that India's quest for BMD capabilities is not really to thwart Pakistani malfeasances but to pursue a counter-force strategy. Accordingly, they are likely to expand their nuclear arsenal, disperse and camouflage their capabilities and also invest in dummy warheads as counter measures designed to undermine India's sophisticated BMD options.<sup>35</sup>

Fourth, the strategic rationale for the pursuit of MIRV technology is far from evident. To achieve a 'minimum credible deterrent' India simply needs

a small, secure and survivable nuclear force. The acquisition of MIRV technology may also needlessly provoke Pakistan's fears and promote an arms race with the PRC. A bureaucratic–scientific–technological momentum, in all likelihood, explains India's pursuit of MIRV technology.

Fifth and finally, India will have to seriously reassess the structure of its civil–military relations. For complex historical reasons, the Indian military has long been utterly subservient to civilian and political authority. Additionally, India's nuclear weapons have been within the purview of the Department of Atomic Energy. Scientists have historically chaired the DAE and have reported to the prime minister. These institutional and organisational arrangements, though far from flawless, enabled India to muddle through in the pre-atomic era.

However, it is quite uncertain that they can continue to meet current needs now that India is, for all practical purposes, a nuclear weapons state. Obviously, India has taken a step towards integrating the military into the decision-making structure through the appointment of a senior officer as the head of its Strategic Forces Command. However, the military establishment still remains firmly under the control of civilian bureaucrats in the Ministry of Defence many of whom have little training in and knowledge of military affairs, let alone strategic studies. This model, bluntly put, is anachronistic and desperately cries out for fundamental reorganisation to ensure that the country can meet the security threats that it hopes to cope with.

In a related vein, the current structure of civil–military relations grants the armed services little or no role in the development of strategic weaponry. The research and development of weaponry remains lodged in the hands of civilian scientists. The armed services are then expected to integrate weapons systems that the weapons laboratories have produced. Ultimately, this lack of coordination and the subservience of the military to civilian authority explains, in part, India's failure to pursue a set of strategic weapons programmes in an organised, coherent and, above all, timely fashion.

- 1 I am grateful to Rajesh Basrur, Paul Kapur and Manjeet Pardesi for comments on an earlier draft. The usual qualifications apply.
- 2 Sumit Ganguly, 'India's Pathway to Pokhran II: The Prospects and Sources of New Delhi's Nuclear Weapons Program,' *International Security*, vol. 23, no. 4 (Spring 1999), pp. 148–77.
- 3 Sumit Ganguly, 'Why India Joined the Nuclear Club,' *Bulletin of the Atomic Scientists*, vol. 39, no. 4 (April 1983), pp. 30–33.
- 4 They are discussed to some degree in Raj Chengappa, *Weapons of Peace: The Secret Story of India's Quest to be a Nuclear Power* (New Delhi: HarperCollins, 2000).
- 5 See the discussion in K. Subrahmanyam, 'Indian Nuclear Policy – 1964–98 (A Personal Recollection),' In Air Commodore (Retd.) Jasjit Singh, ed., *Nuclear India* (New Delhi: Knowledge World, 1998).
- 6 C. Christine Fair, 'Learning to Think the Unthinkable: Lessons from India's Nuclear Tests,' *The India Review*, vol. 4, no. 1 (March 2005), pp. 23–58.
- 7 Much of this material has been drawn from the *SIPRI Yearbook 2009* (Stockholm: Stockholm International Peace Research Institute, 2009).
- 8 T.S. Subramanian and Y. Mallikarjun, 'Agni II Launch a Complete Success,' *The Hindu*, 7 February 2010.
- 9 Rajat Pandit, 'India Surprised by Chinese Fuss over Agni-V,' *The Times of India*, 17 October 2009.
- 10 K.V. Prasad, 'Agni-V to be Test-fired Within a Year: Saraswat,' *The Hindu*, 11 February 2010.
- 11 Our Correspondent, 'ISRO's Feat a Civil Show of Missile Muscle,' *Deccan Chronicle*, 27 September 2009.
- 12 Press Trust of India, 'INS Arihant to Take Long Time to Become Operational: Experts,' *The Times of India*, 26 July 2009.
- 13 T.S. Subramanian, 'Strike power,' *Frontline*, vol. 25, no. 6, 28 May 2008.
- 14 Rajat Pandit, 'India Step Closer to Getting N-Sub,' *The Times of India*, 29 December 2009.
- 15 C. Raja Mohan, 'Nuclear Command Authority Comes into Being,' *The Hindu*, 5 January 2003.
- 16 Press Trust of India, 'First Strategic Forces Command Established in India,' *The Indian Express*, 4 January 2003.
- 17 For an early and informed discussion, see Ashley J. Tellis, *India's Emerging Nuclear Posture: Between Recessed Deterrent and Ready Arsenal* (Santa Monica, CA: The RAND Corporation, 2001).
- 18 Bharat Karnad, *India's Nuclear Policy* (New Delhi: Pentagon Press, 2008).
- 19 For a detailed discussion of the origins and evolution of the Kashmir dispute see Sumit Ganguly, *Conflict Unending: India–Pakistan Tensions Since 1947* (New York: Columbia University Press, 2001).
- 20 See the discussion in Jonathan Holslag, *China and India: Prospects for Peace* (New York: Columbia University Press, 2010).
- 21 Harsh V. Pant, 'China's Naval Expansion in the Indian Ocean and the India–China Rivalry,' *The Asia–Pacific Journal*, 3 May 2010; also see C. Raja Mohan, 'India's Nuclear Navy: Catching up with China,' *ISAS Insights*, no. 78, 20 July 2009; and Robert Kaplan, 'China's Grand Map: How Far Will Beijing Reach on Land and at Sea?' *Foreign Affairs*, vol. 89, no. 3 (May/June 2010), pp. 22–41. For a general discussion of China's military modernisation see David Shambaugh, *Modernizing China's Military: Progress, Problems and Prospects* (Berkeley, CA: University of California Press, 2002).
- 22 See the analysis of this strategy and its consequences in Sumit Ganguly and S. Paul Kapur, *India, Pakistan and the Bomb: Debating Nuclear Stability in South Asia* (New York: Columbia

University Press, 2010).

23 The Kargil conflict of 1999 is not discussed because on that occasion Pakistan used elements of its Northern Light Infantry to cross the Line of Control. For details see Amarinder Singh, *A Ridge Too Far: War in the Kargil Heights 1999* (Patiala: Motibagh Palace, 2001).

24 See Sumit Ganguly and Michael R. Kraig, 'The 2001–2002 Indo–Pakistani Crisis: Exposing the Limits of Coercive Diplomacy,' *Security Studies*, vol. 14, no. 2 (April–June 2005), pp. 290–324; also see Lt Gen. V.K. Sood and Pravin Sawhney, *Operation Parakram: The War Unfinished* (New Delhi: Sage, 2003).

25 See the various contributions in Harinder Baweja ed., *26/11: Mumbai Attacked* (New Delhi: Roli Books, 2009).

26 Some of the difficulties of formulating and implementing an appropriate doctrine are discussed in Walter Ladwig III, 'A Cold Start to Hot Wars? : The Indian Army's Limited War Doctrine,' *International Security*, vol. 32, no. 3 (Winter 2007/08), pp. 158–98.

27 See the discussion in Sumit Ganguly, 'If Pakistanis Strike India Again,' *Current History*, vol. 109, no. 726 (April 2010).

28 Syed Zakir Hussain, 'IAF Moving Sukhoi Base to Northeast to Thwart Chinese Threat,' *The Hindustan Times*, 9 June 2009.

29 Rajesh M. Basrur, 'India's Nuclear Policy,' in Daniel P. Marston and Chandar S. Sundaram, eds., *A Military History of India and South Asia: From the East India Company to the Nuclear Era* (Bloomington: Indiana University Press, 2007).

30 Sisir Gupta, 'The Indian Dilemma,' in Alastair Buchan, ed., *A World of Nuclear Powers?* (Englewood Cliffs, NJ: Prentice Hall, 1966).

31 Daniel Horner, 'Indian Scientist Triggers Debate on Testing,' *Arms Control Today*, vol. 39 (October 2009).

32 G.S Mudur, 'Scientists Hurl Mud Bombs – Debate over Pokhran Nuclear Tests Descends into Slanging Match,' *The Telegraph*, 22 September 2009; Amitabh Sinha, 'Kalam, Chidambaram Rebut Claim that '98 Test was a Dud,' *The Indian Express*, 28 August 2009.

33 For a careful treatment of India's attempts to acquire BMD capabilities, see Ashley Tellis, 'The Evolution of US–Indian Ties: Missile Defense in an Emerging Strategic Relationship,' *International Security*, vol. 30, no. 4 (2006), pp. 113–51.

34 For an extended set of discussions of the concept of the 'security dilemma,' see Ken Booth and Nicolas J. Wheeler, *The Security Dilemma: Fear, Cooperation and Trust in World Politics* (New York: Palgrave Macmillan, 2008).

35 For an alternative formulation see Rajesh M. Basrur, 'Who's Afraid of Missile Defence?', in N.S. Sisodia and S. Kalyanaraman, eds., *The Future of War and Peace in Asia* (New Delhi: Magnum Books, 2010); and for a more technical/strategic discussion see Dean Wilkening, 'The Strategic Impact of Indian Ballistic Missile Defence,' in N.S. Sisodia and S. Kalyanaraman, eds., *The Future of War and Peace in Asia* (New Delhi: Magnum Books, 2010).

# Chapter 3

## The Pakistani Nuclear Deterrent

Bhumitra Chakma

### Introduction

The Pakistan government launched a nuclear power programme in the mid-1950s. At the time of launching the programme, there is no evidence that it intended to build nuclear weapons. In the 1960s, however, Pakistani attitude towards nuclear weapons modified slightly and the country adopted a 'nuclear option' policy, which meant that it reserved the choice to build nuclear weapons in the future. The adoption of a nuclear option policy was manifested in Pakistan's decision not to sign the Non-Proliferation Treaty (NPT) in 1968. Of course the decision not to sign the NPT was taken in reaction to a similar decision by New Delhi. In the early 1970s, Pakistan initiated, albeit clandestinely, a nuclear weapons programme and by the late 1980s it had acquired the capability to build nuclear weapons. The programme eventually culminated in the May 1998 open nuclear tests, which transformed its nuclear identity from an opaque proliferator to an overt, albeit de facto, nuclear weapons state.<sup>1</sup>

Following the nuclear tests, Islamabad announced that Pakistan would pursue a 'minimum deterrence' posture and adopted a 'quantitative' force-building approach to build the deterrent. The Pakistani government has yet to announce the formal adoption of a nuclear doctrine, however in February 2000 it announced the setting up of a National Command Authority (NCA), which was entrusted with the responsibility of developing, deploying and employing the country's nuclear deterrent. Since 1998, Islamabad has continuously upgraded and expanded its nuclear arsenal, a process that continues till today. Pakistan currently possesses an arsenal of about 70–90 nuclear warheads, a substantive stockpile of fissile materials and a formidable missile force.



This chapter examines the historical background of Pakistan's nuclear weapons programme, the rationale for building nuclear weapons, its post-tests nuclear force-building strategy, the challenges that Pakistan confronts in building and maintaining the deterrent and the possible directions of the Pakistani strategic weapons programme in the short to medium term.

## **Historical Background: Why did Pakistan Build Nuclear Weapons?**

The Pakistan government launched a nuclear power programme in the mid-1950s. At the time of launching the programme, there is no evidence that it intended to build nuclear weapons. In the 1960s, however, Pakistani attitude towards nuclear weapons modified slightly and the country adopted a 'nuclear option' policy, which meant that it reserved, should necessity arise, the choice to build nuclear weapons in the future. The adoption of a nuclear option policy was manifested in Pakistan's decision not to sign the NPT in 1968. In the 1970s, Pakistan initiated, albeit clandestinely, a nuclear weapons programme and by the late 1980s, it acquired the capability to build nuclear weapons. The programme eventually culminated in the May 1998 open nuclear tests and the rise of a de facto nuclear weapons state.

The launching of the Pakistani nuclear energy programme and the setting up of the Pakistan Atomic Energy Commission (PAEC) to supervise the country's nuclear development in the mid-1950s was inspired by the American 'Atom for Peace' initiative. Peaceful use of nuclear energy for socio-economic development was the primary intention of the Pakistan government. Pakistan initially devoted its energies to building a civilian nuclear infrastructure, for which it obtained critical support from the International Atomic Energy Agency (IAEA) and the Western countries.

Although PAEC's nuclear activities before 1972 were peaceful,<sup>2</sup> a shift in perception of nuclear weapons did occur in Pakistan in the 1960s, which paved the way for the adoption of a 'nuclear option' policy by the Pakistan government. Several strategic developments were responsible for this shift in perception. Pakistanis warily observed the nuclear debate in India, which ensued in reaction to China's nuclear test in October 1964, and they concluded that India might be contemplating the building of nuclear weapons. Moreover, India's commissioning of a plutonium reprocessing

plant in 1965 was another event that accentuated Islamabad's apprehension about India's nuclear motivation. Pakistani concern grew because India acquired the reprocessing capability against the backdrop of the Indian debate over whether it should build its own nuclear deterrent vis-à-vis China following the latter's nuclear test in 1964. The PAEC perceived India's acquisition of reprocessing capability as a significant technical breakthrough. Munir Ahmed Khan, former PAEC chairperson, recollected that 'Pakistan became increasingly apprehensive of India's designs' after the 'inauguration of the Canadian-Indian reactor' and then 'after the completion of the reprocessing plant (in 1965).'<sup>3</sup> Islamabad's suspicion that New Delhi intended to build nuclear weapons exacerbated even more in the context of the 1965 Indo-Pakistani war.

The adoption of a 'nuclear option' policy was the most visible shift in the Pakistan government's thinking about nuclear weapons, which was reflected in its refusal to sign the NPT in 1968. Islamabad argued that Pakistan's decision not to sign the NPT was based on 'considerations of its own enlightened national interest and national security in the geopolitical context of the region in which Pakistan is situated.'<sup>4</sup> The Pakistani decision signified two crucial issues: firstly, it was a clear manifestation of Islamabad's growing concern over India's nuclear potential which ushered in a new era of India-oriented nuclear policy; secondly, it confirmed that Pakistan had adopted a policy of 'nuclear option,' which meant that it would, should necessity arise, build nuclear weapons in the future.

Islamabad moved to the next stage of nuclear weapons development following the 1971 Bangladesh/Indo-Pakistani War, in which the country was dissected and the original Pakistan was destroyed. Pakistanis viewed this as an unmistakable proof of New Delhi's design to undo the Pakistani state.<sup>5</sup> This war critically influenced the Pakistani decision to build nuclear weapons.

Zulfikar Ali Bhutto took over the presidency of Pakistan from the military junta soon after the end of the 1971 Indo-Pakistani war. Barely a month after his takeover of the presidency, the new president took the decision, albeit clandestinely, to build nuclear weapons. On 20 January 1972, Bhutto convened a secret meeting of Pakistani scientists, where he asked whether the scientists could build 'the (atomic) bomb.' Scientists assured Bhutto that they could make an atomic bomb within three years. At the meeting Bhutto promised that he would provide the necessary facilities and finances for the

nuclear project. Soon-to-be PAEC Chairman Munir Ahmed Khan, who presided over the most crucial phase of Pakistan's nuclear weapons development, was present in that meeting. He later recalled:

On 20 January 1972, he (Bhutto) called a meeting of the scientists in Multan and asked them how could they contribute towards the security of the country to meet not only a major conventional threat but also a looming nuclear challenge from India. At this gathering Mr. Bhutto endorsed the idea of seeking nuclear capability for Pakistan and decided to completely reorganize the Atomic Energy in the country.<sup>6</sup>

The decision to build nuclear weapons was taken against the backdrop of three critical factors:

1. the nuclear decision was an immediate and direct consequence of the dismemberment of Pakistan in the 1971 war;
2. Islamabad suspected that New Delhi intended to manufacture nuclear weapons; and
3. Pakistani political elites, particularly Bhutto, believed that only nuclear weapons could guarantee the national survival of Pakistan against India's conventional and nuclear threats.

Following the 1972 decision, the Bhutto government undertook sweeping measures to expedite the process of nuclear weapons-building. Bhutto himself took charge of the Division of Nuclear Energy Affairs and made the PAEC chairperson responsible only to him. He appointed Munir Ahmed Khan, a known advocate of a Pakistani nuclear force, as the chairperson of the PAEC, replacing I.H. Usmani, who apparently was opposed to Pakistan building nuclear weapons. In March 1974, PAEC set up a body that it called the 'Wah group' (named after the city where it was working) codenamed 'Research,' for developing a nuclear device.<sup>7</sup> It is important to note that this body was constituted before the May 1974 Indian nuclear explosion. It meant that Pakistan was at least putatively working to build a bomb even before the Indian test.

The urgency to acquire the capability to build nuclear weapons got further momentum against the backdrop of India's 1974 nuclear test. Although New Delhi claimed it to be a peaceful nuclear explosion (PNE), Islamabad perceived it to be a weapons test. To allay Pakistani fear, Indian Prime Minister Indira Gandhi wrote a letter to her Pakistani counterpart, Bhutto, assuring him that the explosion had no military, political, or foreign-policy

implications.<sup>8</sup> Bhutto, of course, remained highly sceptical of Gandhi's reassurance and replied asserting that 'it is a question not only of intentions but of capabilities.' He added:

It is well established that the testing of a nuclear device is no different from the detonation of a nuclear weapon. Given this indisputable fact, how is it possible for our fears to be assuaged by mere assurances which may in any case be ignored in subsequent years? Governments change, as do national attitudes. But the acquisition of a capability, which has direct and immediate military consequences, becomes a permanent factor to be reckoned with. I need hardly recall that no non-nuclear-weapon state, including India, considered mere declarations of intent as sufficient to ensure their security in the nuclear age.<sup>9</sup>

Following the Indian explosion, Pakistan employed both the uranium enrichment and the plutonium-reprocessing route to expeditiously acquire the capability to build nuclear weapons. As Pakistan geared up its clandestine nuclear activities, Western countries employed a strategy of technology denial to stop Pakistan from building nuclear weapons. Pakistan emerged as a target country under the trigger list of the Nuclear Suppliers Group (NSG). The NSG, it is noteworthy, was formed in reaction to India's 1974 nuclear explosion. In 1976, the USA opposed the Franco-Pakistani reprocessing plant agreement, from which Paris eventually backed out in 1979. Washington imposed sanctions on Pakistan in 1979 for breaking its non-proliferation legislation (Glen-Symington Amendment).

Pakistan overcame those supply-side restrictions by clandestinely procuring nuclear technology from black markets. Pakistan also sought assistance from its strategic ally, China. Indeed, China played a critical role in the development of Pakistan's nuclear weapons programme. A 1983 US State Department report stated that Islamabad had made significant progress in key areas of weapons-building with critical assistance from China.<sup>10</sup> Although it is difficult to verify China's clandestine assistance to the Pakistani nuclear weapons programme in the absence of authentic government source documents from Beijing or Islamabad, circumstantial evidence and later developments indicate that China indeed provided substantive assistance to Pakistan's nuclear development. For example, in the early 1990s China provided Pakistan with about three dozen M-11 missiles, which now constitute an important element of Pakistan's nuclear deterrent capabilities.<sup>11</sup>

Pressure on Islamabad to dismantle its nuclear weapons programme was eased when the Soviet forces invaded Afghanistan in December 1979. In the

wake of the invasion, Pakistan emerged as a frontline state in the American proxy war to drive out Soviet forces from Afghanistan. Washington not only withdrew the sanctions it imposed on Pakistan under the Glen-Symington Amendment, it also announced a massive military and economic aid package to get Pakistan on its side in the Afghan war. It turned out that Pakistan made critical progress during the Afghan war in the 1980s in its drive to acquire the capability to build nuclear weapons. Superpowers' geopolitical rivalry in Afghanistan helped the Pakistani programme in two ways. First, during the period of the Soviet occupation of Afghanistan, the US and other Western countries were more restrained in putting pressure on Islamabad to abandon its nuclear weapons programme. This was due to the strategic stake of preventing further Soviet expansion in Asia. And this stake was considered higher than the West's concern over Pakistan's nuclear programme. It can be argued that without the USSR's providing such a geopolitical catalyst, the West would have put more pressure on Islamabad to abandon its nuclear weapons programme and would have executed firmer export control of nuclear materials and technology. Second, generous Western economic and military assistance during the Soviet Union's Afghan occupation indirectly contributed to Pakistan's nuclear weapons programme. Otherwise, the strict application of US non-proliferation legislation could have acted as a formidable constraint on Pakistan's nuclear development.

Pakistan was able to enrich uranium beyond 5 per cent by the early 1980s and it is believed that in the wake of the Brasstacks crisis involving itself and India in 1986–87, Pakistan acquired the capability to build a rudimentary nuclear weapon. In 1987, Pakistan's president, Zia-ul-Haq, claimed that 'Pakistan can build a [nuclear] bomb whenever it wishes.'<sup>12</sup>

Pakistan emerged strategically vulnerable following the end of the Cold War and the transformation of the international system. Withdrawal of Soviet forces from Afghanistan in the late 1980s drastically reduced Pakistan's geopolitical importance to the United States. Not only had Pakistan lost its earlier patronisation from the Americans, but Washington also began to impose punitive sanctions against Pakistan for violating America's domestic non-proliferation legislation (the Pressler Amendment). Pakistan's vulnerability accentuated even further as it very soon found itself embroiled in another serious crisis with India over Kashmir that had clear nuclear implications.

In the spring of 1990, the Kashmir dispute flared up against the backdrop of a growing insurgency in the Indian part of disputed Kashmir. New Delhi blamed Islamabad for providing active assistance to insurgents and reportedly planned for surgical strikes against militant training camps inside Pakistan. Soon a war of words between the two countries paved the way for a tense military standoff. In the course of the crisis, Islamabad took all possible measures against a perceived Indian attack on Pakistan. According to various reports, Pakistan assembled components of a nuclear weapon during the crisis and modified F-16 fighter-bombers for delivery purposes. According to Devin Hagerty, 'there is little doubt' that Pakistan assembled a crude bomb at this juncture.<sup>13</sup> Eventually, America's diplomatic intervention and fear of a conflagration helped ease the crisis without further escalation.

Islamabad drew a critical conclusion from the outcome of the crisis; it became even more confident about the value of nuclear weapons to ward off India's possible aggression, which was reassuring for the Pakistanis against the vulnerabilities it was feeling in the aftermath of the Cold War. As Mushahid Hussain noted: 'during May 1990 ... Pakistani policymakers and defence planners were convinced that it was the Indian fear of Pakistani nuclear retaliation that deterred India from attacking Pakistan although its ground troop deployments were apparently poised for a surgical strike against Pakistan.'<sup>14</sup>

Pakistan's dependence on nuclear weapons in the 1990s for its security was reflected in its various ambiguous signals. For example, in February 1992, Pakistan's foreign secretary admitted that Pakistan had acquired the capability to assemble at least one nuclear device, although it has refrained from doing so.<sup>15</sup> This revelation affirmed the nuclear emphasis within Pakistan's defence posture. Perhaps the most stunning revelation about Pakistan's possession of nuclear weapons came from the former Prime Minister, Nawaz Sharif, at a public meeting on 23 August 1994. He disclosed without qualification: 'I confirm Pakistan possesses atomic bomb.'<sup>16</sup> Owing to the nuclear emphasis on the Pakistani defence posture, Pakistan neither endorsed the indefinite extension of the NPT in 1995 nor signed the Comprehensive Test Ban Treaty (CTBT) in 1996.

The Pakistani nuclear evolution had turned full circle in 1998 when it openly conducted underground nuclear tests and declared itself a nuclear weapons state. Those tests were undertaken in response to India's nuclear

tests two weeks earlier. The Pakistani decision to test vindicated a long-standing India-reactive nuclear policy of Pakistan.

As can be observed, various factors influenced the evolution of Pakistan's nuclear thinking and its nuclear development. Zulfikar Ali Bhutto's populist personality and leadership style certainly did play a role in the initiation of the Pakistani nuclear weapons programme. In this sense the perception of an individual leader and domestic politics as a factor played their part in the birth and evolution of the Pakistani nuclear weapons programme. The Pakistani leadership also might have perceived the programme in terms of Pakistan being the first Muslim state to have built nuclear weapons. In this sense, the prestige factor was not absent in the development of Pakistan's nuclear weapons. However, Pakistan's nuclear evolution clearly highlights that its perceived insecurity deriving from arch-rival India was the principal cause of its decision to build nuclear weapons, as well as to cross the nuclear Rubicon in 1998.

### ***Post-tests Pakistani Nuclear Posture***

Islamabad pursued a policy of 'opacity'<sup>17</sup> before it tested nuclear weapons in 1998. Following the tests, Pakistan declared itself a 'nuclear power' and replaced the policy of opacity with a posture of 'minimum nuclear deterrence.' The key assumption in adopting this posture was that the lowest number of nuclear weapons possible would deter the adversary from undertaking an attack on Pakistan. Two critical factors accounted for the adoption of a minimum deterrence posture by Islamabad. First, Pakistanis assessed that it would keep the cost of building and maintaining the nuclear deterrent low, which would be more compatible with Pakistan's financial capabilities. Second, keeping the deterrent minimum would help to avoid a ruinous arms race with a more resourceful and financially capable India. A vigorous arms race between the two countries would bite Pakistan more than the adversary. Therefore, a minimum deterrence posture was rather a natural choice for Pakistan, although in subsequent years Islamabad had to modify its initial perception of minimum deterrence due to fluid strategic environment that the country confronted.

To build the intended deterrent and institutionalise nuclear decision-making, Islamabad announced the setting up of a National Command Authority (NCA) on 2 February 2000. The authority to develop, deploy and

employ nuclear weapons and control over the country's nuclear assets and strategic organisations were delegated to this apex nuclear decision-making body. By late 2000, the NCA became functional and all strategic organisations were brought under its control.

The NCA is composed of three bodies: the Employment Control Committee (ECC), the Development Control Committee (DCC) and the Strategic Plans Division (SPD). The ECC is the chief body where major nuclear decisions are taken, including the decision to employ nuclear weapons. The key function of the DCC is to implement weapons development plans and upgrade the nuclear forces in accordance with the force-building goals set by the ECC. The Strategic Plans Division acts as the Secretariat of the NCA and coordinates all nuclear activities of Pakistan. Headed by a three-star general, the SPD functions under the Chairman of the Joint Chiefs of Staff Committee and is located at the Joint Services Headquarters. Although earlier the president served as the head of the NCA, a crucial change was brought to the nuclear structure in late November 2009. In the new structure the prime minister replaced the president as the head of the NCA.<sup>18</sup>

Apart from the announcement of the setting up of the NCA in 2000, Islamabad has not officially disclosed anything substantive about its minimum nuclear deterrence posture. There is still considerable ambiguity about its deployment and alert posture as well as regarding its nuclear use doctrine. Owing to the paucity of government source materials, it is difficult to be certain about Pakistan's nuclear development or procurement strategy. However, it is yet possible to conjecture some elements of its force-building plans that have emerged from occasional statements of government officials, political and military leaders, and from activities at operational level.

### ***Force-building and the Current State of the Pakistani Arsenal***

Islamabad adopted a 'quantitative' force-building approach in the aftermath of its May 1998 nuclear tests, specifying both short-term (2000–05) and long-term (2000–20) numerical force-development targets.<sup>19</sup> appears that Islamabad succeeded in achieving the short-term target that it initially set. As the then President General Pervez Musharraf announced in early 2005:

In the past we used to keep it quantified in the conventional weapons and now, ever since we have faced the nuclear and missile threat, in response we also quantified that – we quantified the



minimum level. And today, I have been very pleased to announce that we have crossed that minimum deterrence level.<sup>20</sup>

Pakistan by 2005 probably possessed 60–70 nuclear warheads. This figure is deduced based on the following analysis. In the absence of government documents, it is difficult to know what quantitative target Islamabad set for the short-term period (2000–05). However, strategic thinking regarding minimality in quantitative terms was reflected in the argument of Samar Mubarakmand, an influential scientist in Pakistan's nuclear hierarchy who headed the nuclear test team in 1998, that 60 to 70 nuclear warheads would be good enough for Pakistan to have credible nuclear deterrence against India.<sup>21</sup> In a similar vein, Brigadier (Retd.) Naeem Ahmad Salik, a former Strategic Plans Division official, has also posited that Pakistan would need 68–70 nuclear warheads to achieve a minimum nuclear deterrent.<sup>22</sup> Arguably, these views represented the strategic thinking regarding the minimum deterrent force level of the time when Islamabad undertook a nuclear warhead development plan in the aftermath of the 1998 nuclear tests. Therefore, it is reasonable to argue that Pakistan in 2005 possessed a nuclear arsenal of 60–70 nuclear warheads. General Musharraf's 2005 statement, quoted above, possibly represented this figure as the size of Pakistan's nuclear arsenal.

Apparently the size of the Pakistani arsenal has not dramatically increased since 2005 and at the end of 2009 various authoritative sources put the Pakistani nuclear force at 70–90 nuclear warheads.<sup>23</sup> Intriguingly, there has been a dramatic increase in Pakistan's nuclear force-building activities during this period, in particular in the area of plutonium production and reprocessing. There are three possible explanations for this. First, there is a debate about the actual yields of the Pakistani devices that it tested in May 1998. Although Pakistanis claimed to have exploded high-yield devices, it is generally assumed that they were of low-yield HEU variety.<sup>24</sup> Therefore, it was very likely that Islamabad would strive to build higher-yield nuclear warheads in the tests' aftermath.

Second, as the Pakistani nuclear arsenal at the time of its 1998 nuclear tests was composed of only HEU weapons, it was very likely that Islamabad would strive to build plutonium weapons to diversify its warhead stockpile. Another key reason for building plutonium weapons was that plutonium weapons were lighter compared to HEU warheads and hence more suitable for the Pakistani missiles. Indeed, Pakistan's increased nuclear force-

building activities were primarily in the area of plutonium production and reprocessing. The activities at Khusab reactor, located in Joharabad in the Khusab district of the Punjab, highlighted the Pakistani emphasis on the building of plutonium bombs. Pakistan is also building two additional heavy water reactors at the Khusab site. Those reactors and the widely suspected ongoing construction of a reprocessing plant at Chasma signified this trend in Pakistan's weapons development.<sup>25</sup> Furthermore, China in the middle of 2010 reportedly signed a deal with Pakistan to construct two reactors.<sup>26</sup> It will further increase Pakistan's ability to produce more plutonium.

Three, Pakistan's increased nuclear activities were also related to its changed perception about 'minimum deterrence.' Although Islamabad initially set a numerical target for force-building, in subsequent years it realised that 'minimum deterrence' could not be defined in terms of a fixed quantitative number of nuclear warheads. Instead, it needed to be defined in terms of requirements to preserve the credibility of the deterrent in the context of the threat that existed at a particular time. Additionally, Pakistan needed to increase its stockpile of fissile materials as much as possible before the Fissile Material Cut-off Treaty (FMCT) was finalised. Although negotiations for the FMCT have not begun as yet due to Pakistan's opposition, it remains to be seen how far Islamabad is able to withstand the international pressure and block the negotiations for the treaty.

Pakistan has built a formidable missile force as the other component of its nuclear deterrent (see [Table 3.1](#)). Its missile arsenal is composed of varied types of short-and medium-range ballistic missiles as well as two types of cruise missile systems. Pakistani ballistic missiles are of both solid and liquid propellant and can carry conventional as well as nuclear weapons. To be precise, Pakistan's ballistic missile capabilities include the solid-fuelled *Hatf* battlefield missile series, the liquid-fuelled *Ghauri* intermediate-range ballistic missiles and the solid-propellant *Shaheen* series. Besides ballistic missiles, Pakistan has developed two types of cruise missile systems – the *Babar* and the *Raad*. Additionally, Pakistan possesses several dozens of M-11 missiles, which Beijing supplied to Pakistan in the early 1990s.

**Table 3.1 Pakistan's Missile Capabilities**

Missile System	Type	First Test	Range/km	Payload/kg	Fuel
Hatf-I	BRBM	Early 1989	50–90	450	Solid (Single Stage)
Hatf-II/Abdali	BRBM	Early 1989	70–200	450	Solid
<i>Hatf-III Ghaznavi</i>	SRBM	26 May 2002	100–290	800	Solid
<i>Hatf-IV/Shaheen-1</i>	IRBM	15 April 1999	200–650	850	Solid
<i>Hatf-V/Ghauri-1</i>	IRBM	6 April 1998	300–1300	680	Liquid
<i>Hatf-VI/Shaheen-2</i>	IRBM	9 March 2004	700–2200	1100	Solid
<i>Ghauri-2</i>	IRBM	14 April 1999	1800	1500	Liquid
M-11	SRBM		280–300	800–1200	Solid
<i>Hatf-VII/Babar</i>	SRSCM	12 August 2005	500		
<i>Hatf-VIII/Raad</i>	ALCM	25 August 2007	350		

*Sources:* International Institute for Strategic Studies, *Nuclear Black Markets: Pakistan, A.Q. Khan and the Rise of Proliferation Networks: A Net Assessment* (London: IISS, 2007); Major General (Retd.) Mahmud Ali Durrani, 'Pakistan's Strategic Thinking and the Role of Nuclear Weapons,' Cooperative Monitoring Centre Occasional Paper 37, SAND 2004 3375P, Sandia National Laboratories, July 2004; Jane's Strategic Weapons Systems, Issue 39, July 2002, pp. 124–31). Available at: [http://www.pakistanidefence.com/Nuclear&Missiles/Pakistani\\_Ballistic\\_Missiles.html](http://www.pakistanidefence.com/Nuclear&Missiles/Pakistani_Ballistic_Missiles.html); *The News* (Rawalpindi), 25 August 2007.

Since 1998, Pakistan has continuously striven to upgrade its fissile material and nuclear warhead stockpiles and its missile force. This trend in all likelihood will continue as Islamabad is determined to respond to India's nuclear force developments. Not only has Pakistan responded to the Indian development of cruise missile capability by building two different cruise missile systems of its own, it has also recently expressed its determination to acquire nuclear submarine capabilities when India introduced its first nuclear-propelled submarine system – the *Arihant*.<sup>27</sup>

## Challenges to the Deterrent

Pakistan had to overcome multitude of challenges, which stemmed from domestic, regional and international sources, to build its strategic programme. There was particularly deep NPT-driven international

opposition to the Pakistani programme prior to the 1998 nuclear tests. Following the tests, that opposition has not necessarily ended formally, although over the years, owing to a number of factors, Pakistan's nuclear status has been tacitly accepted. Yet the Pakistani strategic programme continues to confront formidable challenges. Broadly, the sources of those challenges can be clustered into three categories: domestic, regional and international.

*Domestic* Pakistan demonstrates all signs of weakness as a state. Its democratic structure is fragile, state institutions are weak and the economy from time to time teeters on the brink of collapse. Today, the writ of the Pakistani state is seriously challenged by religious extremists. The country's internal stability is also torn by sectarian violence, inter-provincial squabbles and the faltering economy. Many fear Pakistan with nuclear weapons could become a 'failed state.'

It remains to be seen how Pakistan evolves as a state in the coming years, which will have profound implications for the management and sustenance of the Pakistani deterrent. The state of the economy will be particularly critical in maintaining the viability and the credibility of the Pakistani nuclear forces. Islamabad has never revealed or discussed publicly how it financed the country's nuclear weapons programme. It is, however, reasonable to assume that it spent a considerable amount of money in building its nuclear force. In the past, Pakistan was able to raise the finance to build the nuclear arsenal because the economy performed relatively well and it was able to extract resources from undisclosed external sources, but its economy is currently in a shambles and this will have an impact on its nuclear programme. How the economy performs in the years to come will have a critical impact on its ability to modernise its nuclear force. Pakistan will need to allocate considerable resources to maintain a robust deterrent capability vis-à-vis India, given that it will need to keep up in some ways with India's nuclear force-building. How the economy performs in the future and how much funding the government is able to allocate to the nuclear programme will have a critical bearing on the future direction of the Pakistani nuclear deterrent.

*Regional* One of the most critical factors that has affected Pakistan's nuclear development and its strategic posture since the inception of the nuclear weapons programme has been its regional security rivalry with India. The

challenge that Pakistan confronts from the regional source will continue to haunt its minimum deterrence posture in the years to come.

Pakistan adopted a quantitatively defined nuclear force-building approach as part of its 'minimum' deterrence posture in the aftermath of the 1998 nuclear tests. However, Pakistani leaders soon realised that 'minimum' could not be defined in *static* and *quantitative* terms, rather, it was necessary to define it in a dynamic context. As Pakistan's foreign minister Abdul Sattar stated:

The minimum cannot be quantified in static numbers. The Indian build up will necessitate review and reassessment in order to ensure the survivability and credibility of the deterrent. Pakistan will have to maintain, preserve and upgrade its capability.<sup>28</sup>

Therefore, to maintain the credibility of the deterrent, Islamabad will have to factor into its posture India's actual and probable nuclear force build-up, as well as New Delhi's plan for building a missile defence system. Pakistan's building of a 'minimum' nuclear deterrent force will also be substantially affected by the 2006 Indo-US nuclear cooperation agreement, because it will enhance India's fissile material stockpile, as the US supply of fuel for the civilian nuclear programme will free up fuel from domestic sources to be used in the weapons programme.<sup>29</sup> Furthermore, India's nuclear programme will be aided from the supply of sophisticated nuclear technologies as was set out in the agreement.

*International* Pakistan had to overcome, as is noted above, serious NPT-driven international opposition to carry forward its clandestine nuclear weapons programme in the pre-tests era. Following the May 1998 nuclear tests, this opposition technically continues, as there is no scope in the treaty to accommodate Pakistan as a nuclear weapons state.

In the past 13 years, although the intensity of international opposition to the Pakistani nuclear status has reduced, there are still considerable reservations about the country's nuclear weapons. This is due to two key reasons. The first is the revelation of the A.Q. Khan network and the record of nuclear weapons proliferation from the Pakistani sources.<sup>30</sup> The second stems from the fear of Pakistani nuclear materials falling into the hands of terrorists.<sup>31</sup> For the moment, the opposition to Pakistan's possession of nuclear weapons is muted due to its importance as a frontline state in the fight against terrorism, but this condition will dramatically alter once the intensity of global terrorist threat reduces and Pakistan's importance in the

fight against terrorism decreases. From that point onward, the opposition to the Pakistani possession of nuclear weapons may increase and Pakistan will find it difficult to obtain the necessary technology to upgrade its nuclear arsenal from international sources.

## **Future Directions**

Many ponderable and imponderable factors will continue to affect the Pakistani nuclear deterrence posture and its nuclear force-building in the years to come. The challenges will primarily stem from the three sources, noted above, and these sources are not necessarily mutually exclusive. Of the three sources, the most critical will be the regional one. Islamabad has traditionally pursued an 'India-reactive' nuclear policy. If it continues with its 'India-obsession' attitude and responds to every nuclear build-up of India, Pakistan will very soon find it difficult to keep up. Such an approach may endanger the viability of the Pakistani nuclear deterrent. This danger could be even more acute if Pakistan's economy does not revamp quickly from its current state.

Meanwhile, Pakistan of course will continue to upgrade its nuclear arsenal and undertake aggressive measure to enhance its fissile materials stockpile. Islamabad in all likelihood will continue to block the beginning of negotiations for the Fissile Materials Cut-off Treaty. It will continue to do so until it is politically feasible to do so against the pressure from the West.

The production and reprocessing of plutonium will be the key area of Pakistani focus for building and upgrading its nuclear deterrent in the coming years. China will be the key partner in this Pakistani endeavour. As is noted above, China has recently signed an agreement with Pakistan to build two reactors. This will significantly boost Pakistan's ability to produce spent fuel.

As can be expected, Pakistan's deterrence posture will remain exclusively India-focussed. It will follow keenly the nuclear activities and postures of New Delhi and adjust its nuclear posture accordingly. It will be the India factor which will continue to drive the directions of the Pakistani strategic programme and its deterrence posture at least in the short to medium term.

1 Despite open nuclear tests, Pakistan (and India as well) remains unacknowledged by the Non-Proliferation Treaty, because the document defines a nuclear weapons state as one 'which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967' (Article IX). Based on this principle, the NPT recognises only five nuclear weapons states – the USA, Russia (former USSR), the UK, France and China.

2 Before January 1972, the activities of the Pakistan Atomic Energy Commission exclusively focused on civilian nuclear infrastructure building and peaceful uses of the atom. A number of factors can be cited in support of such a claim. First, evidence suggests that there was no political decision on the part of the Pakistan government before 1972 to build nuclear weapons. President General Ayub Khan was opposed to such an idea and he in fact did not believe that Pakistani scientists had the ability to build nuclear weapons at that point in time (by the same token he had serious doubts about India's ability to build nuclear weapons). On this point, see Bhumitra Chakma, *Strategic Dynamics and Nuclear Weapons Proliferation in South Asia* (Bern: Peter Lang, 2004), p. 128. Second, it is evident that Pakistan's primary objective in the initial phase of nuclear development was to build a civilian nuclear infrastructure with assistance from the IAEA and Western countries. Islamabad's policy towards the international safeguard system reflects this. It is noteworthy that Pakistan was ready to accept full-scope international safeguards on all its nuclear facilities in the 1960s. Third, former PAEC chairperson I.H. Usmani confirmed the peaceful activities of the PAEC before 1972 in an interview with Neil Joeck. In the interview, Usmani claimed that he resigned from the post of PAEC chairperson in January 1972 because he did not want to follow president Zulfikar Ali Bhutto's order to develop nuclear weapons. See Neil Joeck, *Maintaining Nuclear Stability in South Asia*, Adelphi Paper 312 (London: International Institute for Strategic Studies, 1997), p. 38.

3 Munir Ahmed Khan, '1993 – Crucial for Nuclear Proliferation in South Asia,' *The Muslim*, 10 January 1993.

4 This statement was made by the Pakistani representative, Aga Shahi, at the concluding session of NPT negotiations. See United Nations General Assembly Official Records, 22nd Session, First Committee, 1580th Meeting, 13 May 1968, p. 9.

5 Since the creation of the Pakistani state in 1947, the view of Pakistanis in general has been that the Indian political elites could not accept the creation of their state and hence Indians have remained bent upon undoing the Pakistani state in order to reabsorb it back to *Akhand Bharat* ('Undivided India'). According to a Pakistani diplomat: 'We perceive that the Indian leadership and a sizeable segment of its following continue to regard the formation of Pakistan as a historical error forced on India, that given the opportunity, they would like in some way to redress the situation.' See Sajjad Hyder, *Foreign Policy of Pakistan: Reflections of an Ambassador* (Lahore: Progressive Publishers, 1987), pp. 74–75. This view has persisted at the core of Pakistan's security and defence doctrines. Raju Thomas also reaches a similar conclusion: 'Indian military preponderance does not guarantee Pakistan's independence and sovereignty. Pakistan's fear of being absorbed back into a "Greater India" remains at the core of its defence doctrines and objectives.' See Raju Thomas, *South Asian Security in the 1990s*, Adelphi Paper 278 (London: International Institute for Strategic Studies, 1993), p. 58. This point is important for understanding Pakistan's nuclear motivations.

6 Munir Ahmed Khan, 'Nuclearisation of South Asia and its Regional and Global Implications,' *Focus on Regional Issues* (Islamabad: Institute of Regional Studies, 1998), p. 11.

7 International Institute for Strategic Studies, *Nuclear Black Markets: Pakistan, A.Q. Khan and the Rise of Proliferation Networks: A Net Assessment* (London: IISS, 2007), p. 16.

8 'Letter of the Indian Prime Minister, Mrs. Indira Gandhi,' 22 May 1974, printed in *Pakistan Horizon*, vol. XXVII, no. 3, Third Quarter 1974, pp. 197–8.

9 'The Prime Minister of Pakistan, Z.A. Bhutto's reply,' 5 June 1974, printed in *Pakistan Horizon*, vol. XXVII, no. 3 (Third Quarter 1974), pp. 198–200.

10 The report said that China helped Pakistan ‘in the area of fissile material production’ and in ‘nuclear device design.’ See US State Department, ‘The Pakistan Nuclear Program,’ released under the Freedom of Information Act to the National Security Archive, 17 January 1991.

11 For a comprehensive survey of China’s nuclear and missile assistance to Pakistan, see Nuclear Threat Initiative, ‘China’s Nuclear Exports and Assistance to Pakistan.’ Available at: <http://nti.org/db/china/npakpos.htm>. For an analysis of China’s motivations in helping Pakistan in those areas, see T.V. Paul, ‘Chinese–Pakistani Nuclear/Missile Ties and the Balance of Power,’ *The Nonproliferation Review*, vol. 10, no. 2 (Summer 2003), pp. 21–29.

12 William R. Doerner and Ross H. Munro, ‘Pakistan Knocking at the Nuclear Door,’ *Time* (US edition), vol. 129, no. 13 (30 March 1987).

13 Devin T. Hagerty, ‘Nuclear Deterrence in South Asia: The 1990 Indo–Pakistani Crisis,’ *International Security*, vol. 20, no. 3 (Winter 1995/96), p. 102.

14 Mushahid Hussain, ‘The Nuclear Issue and South Asia: Security via Deterrence,’ *The News*, 24 April 1994.

15 *The News*, 10 February 1992.

16 *The Muslim*, 24 August 1994.

17 According to Cohen, ‘Nuclear opacity is a situation in which a state’s nuclear capability has not been acknowledged, but is recognized in a way that influences other nations’ perceptions and actions.’ See Avner Cohen, *Israel and the Bomb* (New York: Columbia University Press, 1998), p. 2.

18 Sabrina Tavernise and David E. Sanger, ‘Pakistan’s Leader Cedes Nuclear Office,’ *New York Times*, 28 November 2009.

19 IISS, *Nuclear Black Markets*, p. 33.

20 ‘Excerpt from report by Pakistan TV on 19 March (2005),’ quoted in Bhumitra Chakma, *Pakistan’s Nuclear Weapons* (London: Routledge, 2009), p. 59.

21 *Dawn*, 3 June 1998.

22 Naeem Ahmad Salik, ‘Minimum Deterrence and India–Pakistan Nuclear Dialogue: Case Study on Pakistan,’ Landau Network-Centro Volta (March 2006), p. 15. Available at [http://www.centrovolta.it/landau/South%20Asia%20Security%20Program\\_file/Documenti/Case%20Studies/Salik%20-%20S.A.%20Case%20Study%202006.pdf](http://www.centrovolta.it/landau/South%20Asia%20Security%20Program_file/Documenti/Case%20Studies/Salik%20-%20S.A.%20Case%20Study%202006.pdf).

23 Shannon N. Kile, Vitaly Fedchenko Bharath Gopaldaswamy and Hans Kristensen, ‘Chapter 8: World Nuclear Forces,’ *SIPRI Yearbook 2010: Armaments, Disarmament and International Security* (Oxford: Oxford University Press, 2010); Robert S. Norris and Hans Kristensen, ‘Nuclear Notebook: Pakistani Nuclear Forces, 2009,’ *Bulletin of the Atomic Scientists*, vol. 65, no. 5 (September/October, 2009), p. 82.

24 For a candid, although brief, discussion on the controversy, see IISS, *Nuclear Black Markets*, pp. 32–33.

25 Although Islamabad has not acknowledged it, it is widely suspected that a reprocessing facility at the Chasma nuclear site is under construction. For details, see David Albright and Paul Brannan, ‘Chasma Nuclear Site in Pakistan with Possible Reprocessing Plant,’ The Institute for Science and International Security (18 January 2007). Available at: <http://www.isis-online.org/publications/southasia/chashma.pdf>.

26 Daniel Horner, ‘China, Pakistan Set Reactor Deal,’ *Arms Control Today*, vol. 40 (June 2010).

27 For a Pakistani assessment of India’s introduction of *Arihant* and the possible Pakistani response, see Mohammad Azam Khan, ‘The Indian Undersea Nuclear Deterrence and Pakistan Navy,’ *IPRI Journal*, vol. 10, no. 2 (Summer 2010), pp. 89–111.

28 Abdul Sattar, ‘Pakistan’s Nuclear Strategy,’ inaugural address at a seminar on ‘Pakistan’s Response to the Indian Nuclear Doctrine,’ organised by Islamabad Council for Foreign Affairs and



Institute of Strategic Studies, Islamabad, on 25 November 1999, printed in 'The Nuclear Debate,' *Strategic Issues* (Islamabad: Institute of Strategic Studies, March 2000), p. 3.

29 According to an estimate it may give India the capability to fabricate an additional 12 HEU weapons or 75 plutonium bombs a year. See Henry Sokolski, 'Backing the US–India Nuclear Deal and Nonproliferation: What's Required,' Testimony before a (US) Senate Foreign Relations Committee, 3 November 2005. Available at [http://www.carnegieendowment.org/static/npp/2005conference/presentations/Sokolski\\_India.pdf](http://www.carnegieendowment.org/static/npp/2005conference/presentations/Sokolski_India.pdf).

30 For a discussion on this issue, see Chapter 7 of Bhumitra Chakma, *Pakistan Nuclear Weapons*, pp. 104–26.

31 Secret diplomatic cables published by the whistleblower website WikiLeaks highlight private worries of US, UK and Russian diplomats about this possibility. Documents also project that this possibility is the worst 'private nightmare' for Obama. See Jane Perlez, David E. Sanger and Eric Schmitt, 'Nuclear Fuel Memos Expose Wary Dance with Pakistan,' *The New York Times*, 30 November 2010.

**PART II**  
**Doctrinal Developments**

## **Chapter 4**

# **India's Nuclear Doctrine: Ten Years Since the Kargil Conflict**

Swaran Singh

The first five years following the nuclear tests by India and Pakistan in May 1998 were tumultuous, particularly with the fourth India–Pakistan War of May– June 1999 in the Kargil sector of their Line of Control (LoC) in Kashmir. This was their first war after both had formally declared themselves nuclear weapons powers and they did resort to brandishing nuclear threats raising serious concerns among major world powers. The Kargil conflict, as a result, was a decisive watershed in moulding India–Pakistan nuclear thinking, as also in bringing about maturity in the combatants' doctrinal formulations. This decade of doctrinal deliberations in South Asia of course carried equally significant implications for global discourses on nuclear doctrines.

In the context of East–West nuclear stalemate from 1949, the Kargil conflict is often compared with the famous Cuban Missile Crisis. But this sabre-rattling in the case of India–Pakistan nuclear equations took not 13 years but 13 months to hit the nadir, as it came so quickly following their nuclear tests. Comparisons are also drawn with Sino–Soviet skirmishes on the Ussuri River in the summer of 1969, when the Soviets had threatened nuclear strike on China's Lop Nor nuclear site.<sup>1</sup> But even that military stand-off between two nuclear weapons powers occurred five years after China went nuclear in October 1964. All this no doubt showed their daring experimentation and also reflected their inheritance of the cumulative wisdom from the Cold War nuclear theologies.

The pertinent question that this chapter seeks to answer is whether this decade of hectic evolution in India's nuclear doctrine makes any value addition to those global discourses and has any lessons for understanding

the trajectories of new nuclear weapons states like North Korea or the aspirant nuclear weapons powers like Iran.

## **The Prologue**

For India, the first five years (1998–2003) were to lay the foundations of its formal and explicit nuclear doctrine. To begin with, Prime Minister Vajpayee's articulations in announcing the nuclear tests on 11 May 1998, his address and written summary to the lower house of Parliament on 27 May 1998, and his similar speech in the upper house of Parliament on 15 December 1998, were to outline the broad contours that continued to define India's nuclear doctrine. These outlines were later to be deliberated by India's first National Security Advisory Board (NSAB) in their Draft Nuclear Doctrine (DND), which was released by India's first National Security Advisor (NSA) on 17 August 1999.

Later, in the aftermath of India's Operation Parakram – which was launched in reaction to the terrorist attack on the Indian national parliament on 13 December 2001 and continued for ten months with forward deployment of India's 500,000 troops on the Pakistan border – the Prime Minister's Office (PMO) released another document – one page, quickly cobbled together – on 4 January 2003, – said that the Cabinet Committee on Security (CCS) had reviewed India's nuclear doctrine and had set up the Indian National Command Authority (NCA). This was seen as implying the official enunciation of India's nuclear doctrine, though most debates continued to be based on the DND.<sup>2</sup>

The next five years (2004–09) were to witness a relative slowdown from that initial hyperactive sojourn of the first five years of Indian nuclear doctrine. While India continued to muddle piecemeal through procuring and developing new weapons systems and setting up new institutions to operationalise its nuclear deterrent, the doctrinal debates gradually began to ignore the need for regular reviews and the power elite became relatively reticent, even in the face of several aberrations that had come to light over the years. The world we live in is no longer the same as it was in 1999 and it is still changing fast. Yet in view of the emerging new threats of the twenty-first century – pandemics, climate change, energy security, trade

rules, terrorism, etc. – the nuclear debates remain based on Cold War axioms and couched in Westphalian ideas and semantics.

Does this make India's nuclear doctrine become, in Colin S. Gray's words 'ever less reliable,'<sup>3</sup> if not completely outdated? The nuclear journey has perhaps come full circle, with its expanding focus on other civilian spin-offs of nuclear sciences, especially the nuclear power generation making a comeback as the future currency of power with which to deal with the impending global energy crisis.<sup>4</sup> At the same time, India's conventional war-fighting strategies are also evolving into new forms and content in view of the ever-expanding awareness about their nuclear weapons backdrop. Nuclear doctrine, as a result, has to address a much wider range of needs and expectations which call for the regular evaluation and update of old concepts and paradigms.

## **India's Unilateralism**

The foundations of India's nuclear doctrine were laid in a series of unilateral initiatives taken by the government of India. Many experts believe that 'leverage gained from the nuclear tests was dissipated through a series of unilateral concessions' in the hope that outlining a clear doctrine would ensure a positive response from the international community.<sup>5</sup> But as we know, at the end of the decade, the picture was more complicated. On 11 May 1998, when Prime Minister Vajpayee addressed the nation to make 'an important announcement,' he was doing more than congratulating India's scientists and engineers. In that very brief statement he showcased the range of explosion types they were exploring – fission, low-yield and thermonuclear devices – and also confirmed India's commitment to a partial test ban treaty.

A more substantial outline was presented by Prime Minister Vajpayee to India's Parliament on 27 May 1998, when he explained how India 'did not intend to use these weapons for aggression or for mounting threats against any country; these weapons are weapons of self-defence, to ensure that India is not subjected to nuclear threats or coercion;' and how India 'did not intend to engage in an arms race' and would 'observe a voluntary moratorium and refrain from conducting underground nuclear test explosions.'<sup>6</sup> Speaking to the upper house of Parliament on 15 December

1998, Vajpayee added two new caveats: the ‘policy of No First Use’ and ‘minimum credible deterrent,’ and said that the National Security Council (NSC), with assistance from the NSAB, would soon be elaborating on these concepts.<sup>7</sup> It was in November 1998 that the government set up the NSC and the NSAB and assigned them the responsibility of weighing various options in regard to nuclear weapons doctrine.<sup>8</sup>

The second major articulation was to come on the eve of India’s 13th general elections and in the aftermath of the Kargil conflict. Brajesh Mishra, the NSA of the outgoing government – the Bharatiya Janata Party (BJP)-led coalition of the National Democratic Alliance (NDA) – released the DND on 17 August 1999. It was then projected as the NSAB’s Draft Nuclear Doctrine, meaning that it was not yet approved by the government. The DND had evolved after six months of deliberations and was profoundly affected by the six weeks of the Kargil conflict. This was the most detailed outline of any nuclear doctrine ever. Underlining the transient nature of the DND and highlighting the need for ‘greater transparency in decision-making,’ and emphasising the ‘great responsibility and restraint’ demonstrated by the Indian political leadership in the Kargil conflict, the NSA declared that the DND was ‘for public discussion and debate.’<sup>9</sup>

## **Narrower Bandwidth**

As expected, the DND immediately opened the floodgates of strategic debates and a spate of publications followed. The most serious nuclear crises in the post-test era – the Kargil conflict and the 2001–02 military stand-off (Operation Parakram) with Pakistan had aroused global interest and all this had a distinct and direct impact on India’s doctrinal development. The DND, nonetheless, was largely a political document that was projected as the wish list of hand-picked retired generals and bureaucrats with a sprinkling of agreeable media personages and the academic community. As a result, the DND was essentially His Master’s Voice with little connection to dissenting voices and even to the larger civil society and academic debate in general.

The DND also reflected the fact that India’s armed forces were not part of India’s defence or nuclear policymaking. Even the limited autonomy they had enjoyed in choosing their weapons systems was denied to them when it

came to choosing their nuclear devices, let alone providing critical inputs into national nuclear strategies or doctrines that would direct the use of these weapons. The contrast was particularly stark given that in the case of Pakistan it was the other way round; it was the civilian leadership of Pakistan that was often at sea when it came to nuclear decision-making. But beyond that India and Pakistan were so similar. For example, at the popular level, participation was restricted to the momentary euphoria of the drum-beating slogan-shouting cadres, while the participation of people with a deeper understanding of issues remained very selective, and restricted at best.

The key consequence of this is the wide gap that persists between official and popular perceptions. The Kargil Review Committee, set up by the Government of India, concluded that Pakistan had made only a 'veiled' nuclear threat against India, while the media was agog, repeatedly interpreting verbose polemics from both sides as the brandishing of nuclear threats. This, in spite of the fact that the Kargil conflict was celebrated as an example of media and opposition standing together in support of government's war efforts. Among others, a paper by a White House aide, Bruce Riedel, revealed how the US had been aware of Pakistan's armed forces preparing nuclear weapons for deployment against India during the Kargil conflict. This aroused wild speculation. According to an Indian scholar, 'Indian and Pakistani officials delivered indirect and direct nuclear threats to one another at least 13 times.'<sup>10</sup>

All this was to make the Kargil conflict the most immediate major factor in the formulation of the DND, which outlined:

- a. disarmament,
- b. self-defence,
- c. No First Use, and
- d. credible minimum deterrence as the basic principles of India's nuclear doctrine.<sup>11</sup>

A moratorium on nuclear testing was adopted as another principle in subsequent documents and speeches and codified by the 4 January 2003 press release of the PMO. Later, this commitment to a moratorium on nuclear testing was officially codified in the bilateral Indo-US Civilian Nuclear Cooperation Agreement of 10 October 2008. With this the basic

contours of India's nuclear doctrine seem to have been finalised, though there are new challenges – like terrorism – which demand urgent attention.

## India's Nuclear Doctrine

Much of the nuclear debate came to a virtual halt with the terrorist attacks on the United States on 11 September 2001. These attacks were both preceded and followed by daring terrorist attacks on the legislature of India's province of Jammu & Kashmir and, later, an attack on India's national parliament in Delhi – which led to a ten-month long India–Pakistan military stand-off when India pursued Operation Parakram. As a result, the NDA government's original emphasis on the 'transient' nature of the DND and on the need for public discussion was wrapped up quickly in a one-page press release that was issued by the PMO on 4 January 2003. It represented the formalisation of India's nuclear doctrine.<sup>12</sup> The document summarised India's nuclear doctrine to include the following (emphasis added):

- i. Building and maintaining a *credible minimum* deterrent;
- ii. A posture of 'No First Use' [where] nuclear weapons will only be used in retaliation against a nuclear attack on Indian territory or on *Indian forces anywhere*;
- iii. Nuclear retaliation to a first strike will be *massive* and designed to inflict *unacceptable* damage;
- iv. Nuclear retaliatory attacks can only be authorised by the *civilian political leadership* through the Nuclear Command Authority;
- v. Non-use of nuclear weapons against non-nuclear weapon states;
- vi. However, in the event of *a major attack* against India, or Indian forces anywhere, by *biological and chemical* weapons, India will retain the option of retaliating with nuclear weapons;
- vii. A continuance of strict controls on export of nuclear and missile related materials and technologies, participation in the Fissile Material Cut-off Treaty Negotiations, and continued observance of the *moratorium on nuclear tests*;
- viii. Continued commitment to the goal of a nuclear weapon free world, through global, verifiable and non-discriminatory *nuclear disarmament*.



This short press release sought to make a clear shift from the DND and the initial speeches of Prime Minister Vajpayee in regard to the country's nuclear weapons. The PMO's press release of 4 January 2003, indeed, introduced the following changes in India's nuclear doctrine:

- First, the emphasis in India's proposed nuclear doctrine had shifted from 'minimum' to 'credible' i.e. from 'minimum credible deterrence' of the prime minister's speech of 27 May 1998 to 'credible minimum deterrence.'
- Second, two more exceptions were added to India's No First Use doctrine and these included (a) attack on India's armed forces anywhere, i.e. including outside India's boundaries; and (b) any 'major' biological and chemical weapons attack on India or Indian forces anywhere.
- Third, it omitted the most operational part of the DND, i.e. it made no mention of the nuclear triad with nuclear assets in air, on land and at sea. Given that India had no sea-based weapons for a credible second strike make this the most critical and glaring flaw of India's nuclear doctrine.
- Fourth, unlike the DND, it promised a moratorium on nuclear testing, effective export controls on missile and nuclear materials and technologies and participation in Fissile Materials Cut-off Treaty negotiations in Geneva.<sup>13</sup>
- Finally, it also put in place a National Command Authority, creating a political head (in the person of a prime minister) to take a policy decision to employ nuclear weapons, an advisory head (National Security Advisor) and an operational head (Commander-in-Chief of the Strategic Command Force), though the proposed position of Chief of Defence Staff still remains to be filled.

## **Hiccups in Operationalisation**

In spite of these changes, the general outline and the underlying assumptions of the final doctrine were still largely a reflection of the original DND. Those changes were possibly undertaken from political considerations, both domestic and external. The DND, in turn, was believed

to have been inspired by the 1998 Election Manifesto of the BJP.<sup>14</sup> In the next five years, from the nuclear tests of 1998 onwards, doctrinal thinking seems to have been dominated by the Kargil conflict. Even though there were several smaller watersheds in this second five years (2004–09) in the doctrinal development, only piecemeal steps were taken to build requisite assets in order to operationalise India's nuclear doctrine. It seemed that the Indian nuclear doctrine had stopped growing.

For instance, in spite of the recent hype in nuclear terrorism there has been no official response to address these emerging new concerns, let alone efforts at reformulating the nuclear doctrine. In contrast, a more vigorous debate on conventional war-fighting doctrine was undertaken. Each of the three services have since produced newer versions of their war-fighting doctrine. The debates on the army's 'Cold Start' doctrine of conventional war-fighting shows especially how India has been contemplating nuclear situations and trying to ensure that future wars are not allowed to trigger uncontrolled escalation towards nuclear war.

To some extent, nuclear debates have also been contemplating situations where deterrence might fail and evolving a 'Limited War' doctrine to maximise and extend the potency and efficacy of India's nuclear deterrent, even in actual war-fighting.<sup>15</sup> The last ten years have also seen India trying to get a handle on this unique China–India–Pakistan nuclear triangle situation, where China and Pakistan are seen as time-tested partners, resulting in new concerns about threats from terrorism.<sup>16</sup> These years have also witnessed India being recognised as an important stakeholder in the nuclear world order and India is not only learning to deal with its new profile but also trying to add value to the ongoing global nuclear discourses with its evolving nuclear doctrine to meet the challenges of the twenty-first century. To evaluate India's challenges in achieving all this, one must begin by appreciating the genre and unique selling points of India's nuclear doctrine and examine the contours of her evolving debates on 'Cold Start' and other 'limited war' thinking that seek to supplement and evolve her nuclear doctrine.

## **India's Unique Selling Point**

Waheguru Pal Singh Sidhu highlights three features that make India's nuclear doctrine stand apart from those of the other states with nuclear weapons.<sup>17</sup> First, no other country has propounded a nuclear doctrine before developing its nuclear arsenal. Normally, it is the evolution of nuclear assets and technologies that have guided the evolution of nuclear doctrines. Second, in contrast to India, most other nuclear doctrines are not known for their wordiness and are either rather succinct or give information only in bits and pieces in several secret documents. Third, while the nuclear doctrines of other nuclear powers deal with the employment of nuclear weapons, India's nuclear doctrine, in contrast, emphasises nuclear abolition.

Yet, there is something more that is unique in India's nuclear doctrine. It is unheard of to attempt to develop a joint nuclear doctrine in collaboration with one's adversaries. Soon after taking over power from the BJP-led NDA government during the summer of 2004, the newly appointed Congress Foreign Minister, Natwar Singh, made a unique proposal that is still referred to as the 'Natwar Doctrine.' He posited that since all three states – China, India and Pakistan – were now nuclear weapons powers, it was time that the 'three countries should get together and work out a common nuclear doctrine. This is a matter that needs to be discussed at the highest level.'<sup>18</sup>

Although very briefly, this idea did ignite wild speculations, Natwar's exit as a result of his alleged involvement in a scandal over the Oil-For-Food Programme in Iraq led to it being dropped without further exploration.<sup>19</sup> Similarly, strategic experts in India, like K. Subrahmanyam, Jasjit Singh and General Sundarji, have talked about a 'de-mated' nuclear deterrence posture.<sup>20</sup> Such a formulation seems to best reflect India's culture of the Buddhist 'golden mean' and also the unique present reality of weapons cores being with the Atomic Energy Commission.

While most other NWS have had external links, India's nuclear thinking and technologies basically grew out of indigenous efforts and traditions. Some experts argue that India has also received assistance from abroad, although its origins remained relatively unclear.<sup>21</sup> While India's nuclear technologies are seen as inspired by Canada and the former Soviet Union/Russia, its nuclear doctrine is believed to be inspired by examples of Chinese and US thinking. What remains the most visible distinction in this regard is the direct intervention of great powers into the operations of India's nuclear deterrence. In this context, the Kargil conflict provides the

most apt example: the war had ended with active diplomatic intervention from Washington and Beijing.

## **No First Use (NFU) Policy**

India's NFU doctrine has created tremendous controversy and it continues to remain a subject of fierce debate and speculation. India's nuclear doctrine permits the 'first use of nuclear weapons against non-nuclear states allied to a nuclear power.' Critics point out that it is a clear departure from genuine first-use policy and 'makes it more likely that India would use nuclear weapons in a future conflict with Pakistan.'<sup>22</sup>

The DND could not have been clearer when it said: 'India *will not be the first* to initiate a nuclear strike, but will *respond* with punitive retaliation should deterrence fail' [emphasis added].<sup>23</sup> It is true that there have been reports that some Indian experts, including some within the NSAB, were urging the Indian government on different occasions to rescind the NFU commitment, but it did not reflect the mainstream view, let alone consensus among India's opinion or policymakers. For some, such writings often reflected the author's desire for quick fame in complete disregard of 'flexibility' in India's strategic culture that made it 'adaptable to new ideas and circumstances.'<sup>24</sup>

The Kargil conflict experience has highlighted how, in the case of India, nuclear weapons deter *only* nuclear weapons and that low-intensity conflict will continue to be fought under the shadow of nuclear weapons. As of now, India's nuclear doctrine seems inadequate in addressing 'limited war' scenarios that seek to extend deterrence into actual war-fighting. The experience of the past ten years highlighted Glen Snyder's thesis, the stability–instability paradox.

As the proxy wars using terrorist groups as strategic tools by Pakistan continue unabated, Indian nuclear doctrine does not appear to grapple with such scenarios, although conventional war doctrine has made progress on this front. This has led to the rise of the 'Cold Start' doctrine, which is seen as a first step in its 'limited war' matrix. Of course, such a formulation lowers the nuclear threshold, thereby threatening strategic stability.<sup>25</sup>

## **Cold Start and Limited War Doctrines**

In addition to influencing the DND, the Kargil conflict and Operation Parakram triggered fresh thinking about the operational aspects of war-fighting against the nuclear backdrop: what if deterrence fails and how to sustain deterrence once war-fighting has ensued between India and Pakistan?<sup>26</sup> *The Kargil Committee Report* described the Kargil conflict as a ‘limited’ war, thereby making war in the shadow of nuclear deterrence an acceptable reality.<sup>27</sup> This paved the way for vigorous debates on the concept and strategies of fighting a ‘limited’ war and its multivariate implications for the security and strategic stability of the region.

The Indian Army, which has had a ‘fundamentally defensive orientation ... since independence in 1947,’ announced its offensive tri-services Limited War doctrine of ‘Cold Start’ on 28 April 2004. It was expected to ‘allow it to mobilize quickly and undertake multiple retaliatory attacks in response to specific challenges posed by Pakistan’s “proxy wars” in Kashmir.’<sup>28</sup> The idea was to ‘establish the capacity to launch retaliatory conventional strikes against Pakistan that would inflict significant harm on the Pakistan army before the international community could intercede and, at the same time, pursue narrow enough aims to deny Islamabad a justification to escalate the clash to the nuclear level.’<sup>29</sup> More specifically, it aims to make shallow territorial gains up to 50–80 km with a focus on counter-force strikes, and then to use these possessions for post-conflict bargaining.

The doctrine is called ‘Cold Start,’ as it aims to have troops deployed to launch immediate offensive land–air–sea strikes at very short notice, without months of preparations for mobilisation, thereby warming up the battlefield.<sup>30</sup> The project seems ambitious, but in principle both Indian and Pakistani generals agree that there exists space between proxy war and/or low-intensity conflict and the nuclear threshold within which a limited conventional war remains a possibility.<sup>31</sup> Meanwhile, the Indian army has moved the Cold Start doctrine beyond conceptual level and has begun to develop a blitzkrieg-type joint war-fighting strategy, although not much is known in public about the level of their progress. The army and air force have had joint operations in recent years, yet recently issued maritime doctrine does not explain ‘the role it expects to play’ or how it seeks ‘to reconcile the Maritime Strategy with the Indian Air Force’s increasing interest in deep strikes.’<sup>32</sup>

In the Foreword to the *Indian Army Doctrine*, the Army Commander of the Army Training Command (Shimla) has maintained that the Cold Start doctrine is to be reviewed every five years. It is interesting that this five yearly review would have to be undertaken against the backdrop of the terrorist attacks on Mumbai on 26 November 2008. The attacks provided certain triggers for the review, though there remained several lacunae, including the inter-services issue, that need to be addressed.<sup>33</sup> As in any conflict, termination or 'exit' strategies remain particularly critical in any war-fighting doctrine. The imperative is to preclude nuclear first strike by Pakistan as it professes a first-use policy. Such a manoeuvre 'would require getting it to acknowledge the gains in acceding to eminently reasonable Indian demands to traverse into the nuclear unknown.'<sup>34</sup> And here, in addition to demonstration of India's nuclear assets, it is important to ensure that Pakistan remains aware of Indian resolve as well as Indian doctrine.

## **Future Trends: Assets Versus Doctrine**

It is often said that besides the official pronouncements, the trends in the building of a country's nuclear assets remains the most reliable barometer for understanding the evolution of that country's nuclear doctrine. At the core of such a perspective has been the debate about the total number of India's nuclear weapons. Working on an average of 60 per cent efficiency in various nuclear reactors and in terms of equivalents of Hiroshima-type elementary devices, India is expected to have an arsenal of a maximum of 200 nuclear bombs by 2010 and about 268 by 2020.<sup>35</sup> This is followed by debates on India's delivery systems and targeting priorities. The DND envisaged a triad and the size of the nuclear arsenal would define India's vision about the employment of its nuclear devices.

As regards India's delivery systems, other than those who believe in delivering nuclear bombs on bullock carts, the lack of sophisticated targeting technologies makes the country's air arm both easily available and also the most reliable to be the first to equip with nuclear devices. By the time nuclear doctrine was officially adopted in 2003, India already had about 40 Sukhoi-30MKIs, 80 Jaguars and 35 Mirage-2000s and 60 MiG-29s. Even the Indian navy depended on eight Tucano-124s and four Tucano-22Ms as their low-flying, nuclear-capable delivery systems. Their

numbers have only gone up since that time. Although India started its Integrated Guided Missile Development Programme (IGMDP) in early 1980s and test-fired a whole range of ballistic missile systems, there remains a strong sense in the country that India lags behind not only China but also Pakistan when it comes to nuclear-capable missiles.<sup>36</sup>

More specifically, India is believed to have modified the Mirage-2000 to drop gravity bombs from the air and has operationalised the rail and road mobile *Prithvi* short-range surface-to-surface missiles covering the land and air legs of the nuclear deterrent. Nonetheless, there were concerns about the makeshift Mirage remaining a target for sabotage and especially vulnerable to the terrorists' favourite shoulder-fired rockets, and about the mobility of *Prithvi* missiles being suspect at a time of crisis, given India's terrible rail and road conditions. It is in the third leg of sea-based, submarine launched ballistic missiles (SLBMs), therefore, that India sees credibility. It is in this area that India remains far behind the other nuclear weapons states, including China. China has about 62 submarines, including ten SSNs and its two *Xia*-Class SSBNs that are readying themselves for the new 7,200 km-range *Julang-2* SLBMs which are expected to become operational from the end of 2010.<sup>37</sup>

## **India's *Arihant* SSN Project**

The launch of India's indigenous nuclear-powered submarine (SSN), *Arihant* ('Slayer of Enemies'), on 26 July 2009 at the southern coastal city of Vishakhapatnam has created some enthusiasm and curiosity.<sup>38</sup> This 6,000-ton submarine is expected to be under trials for next two years. This overdrawn and long-delayed project of the Vishakhapatnam naval dockyard, code-named 'Advanced Technology Vehicle' (ATV) has already cost India \$2.9 billion since the early 1980s. Its 80-megawatt pressurised water-powered reactor can make it reach a speed between 22 and 28 kmph (12–15 knots) on the surface and at 44 kmph (24 knots) while submerged and it will operate from a depth of half a kilometre. It is expected to have a crew of about 95 men and will be armed with torpedoes and missiles, including 12 ballistic missiles. The Indian government has already sanctioned Rs. 30,000 crore for two more ATVs: a 12,000-ton 'K-152 Nerpa' *Akula*-II class Russian SSN to be procured on a ten-year lease,

which was supposed to be delivered in early 2010, and a refitted aircraft carrier, Gorshkov (INS *Vikramaditya*) including MiG-29K fighters. They will transform India's power projection capabilities in the coming years. In recent years India's defence budget has been witnessing a substantial increase, with the bulk of the additional sources meant for procurements of advanced technologies that included 140 Sukhoi-30s and 1,000 more Russian T-90 MBTs.<sup>39</sup>

The launch of *Arihant* has drawn criticisms from some quarters. A commentator has pointed out that it is just 'little more than a floating hull' which has neither nuclear reactor nor weapons.<sup>40</sup> A senior officer connected to the ATV project was quoted in *The Times of India*, saying that 'Each and every system [of *Arihant*] has to be tested and flushed clean. It will take four sets of flushing and a year before the miniature 80MW nuclear reactor, and its containment vessel fitted in the submarine's hull, attain criticality.'<sup>41</sup> This secret ATV project was originally conceived as a nuclear-powered fast-attack submarine (SSN) during early 1970s by the then Prime Minister Indira Gandhi.<sup>42</sup> But it was launched in the early 1980s and gradually came to be a ballistic missile launching submarine (SSBN) project called the ATV.

This project had been known and written about for decades, yet the first official confirmation of its existence came only in February 2009 when the defence minister announced it during the Aero India show in India's southern city of Bangalore. It is interesting to note that *Arihant* is also expected to be armed with cruise missiles. However, while the Atomic Energy Commission is working on its nuclear reactor, the Defence Research and Development Organisation (DRDO) is working on the *Sagarika* SLBM project for a 700 km K15 missile capable of carrying a nuclear warhead. The DRDO has also tested a 3,500 km SLBM version of *Agni-III* but this will not be available till 2015.

Since 2003, India has also been working on ballistic missile defence (BMD) and Indian officials and experts have attended several conferences and interactive sessions in the United States and Japan to advance India's BMD ambition.<sup>43</sup> Meanwhile, India has also developed *Aakash* and procured Russian S-300 interceptors, which are believed to be effective against slow-flying and short-range ballistic and cruise missiles. But tracking and killing Chinese and Pakistani intermediate-range missiles before they hit their target does not seem a possibility, at least in the near



future. Similarly, India's space programme is also growing piecemeal. No doubt growing closer India–US relations has created some enthusiasm, yet these projects remain vulnerable to outside pressures.<sup>44</sup> Rahul Roy-Chaudhury alludes to how India's increasing interests and progress in ballistic missile defence systems calls for a revisiting of India's nuclear doctrine: 'it may well be prudent to formally update or elaborate upon India's nuclear doctrine, keeping in view key issues such as India's development of a BMD system.'<sup>45</sup>

## Shifting Goal Posts

India's nuclear doctrine is driven by political overtones that privilege political contingencies over reason. For instance, the emphasis on the nature of nuclear stockpiles has shifted from 'minimum' to 'credible.' The numbers in minimum deterrence being dynamic, such swings in emphasis can disrupt the military's calculations about requisite quantities and also their operational priorities. It is important to note that these swings are not necessarily the outcome of any hard-headed cost-benefit calculus or threat perceptions. They are often guided by political imperatives. At the very apex of decision-making, these emphases had shifted from 1998 to 2003 from 'minimum' to 'credible' and are lately moving again towards 'minimum.'

These swings highlight the character of India's nuclear doctrine. The 'outer limit' of strategic weapons for India, which are ICBMs for NWS, are no longer emphasised as critical for India's nuclear deterrence posture. 'We need credible minimum deterrence not against the whole world. We need the capability only with respect to our neighbourhood' said Chief of Naval Staff Admiral Sureesh Mehta in August 2009.<sup>46</sup> Only few days earlier, though, Prime Minister Manmohan Singh said something slightly different. While launching *Arihant* for trials, he said: 'We seek an external environment in our region and beyond which is conducive to our peaceful development and the protection of our value system.'<sup>47</sup> The reality, meanwhile, remains rather different: the *Arihant* SSBN project, being prepared to be armed only with a 700-km range, two-stage K-15 SLBM, remains pale in comparison to the well over 5,000-km range missiles of

other NWS. India, on the other hand, is still some distance away from the extended-range K-5 SLBM which is expected to have a range of 3,500 km.

Other than these political overtones, there remain serious operational pitfalls that also do not have any answers in any historical discourses. For instance, India's location makes it integral to a unique situation of a 'nuclear triangle,' consisting of three large-sized (especially China and India) developing countries with colonial experience, diverse political culture and institutions, and long-disputed borders that have witnessed repeated wars and military stand-offs. The situation has completely changed here in last ten years. While Pakistan has become increasingly vulnerable to terrorist threats, the China-India bonhomie has eroded over the last five years. Does this call for a review of India's 2003 nuclear doctrine?

The average system-malfunctioning in these countries itself makes their deterrence hinge on a short fuse, yet their doctrines remain insufficiently explicit and lend themselves to interpretations. There is no other example in history which can provide any lessons or model. Similarly, whether India needs more nuclear tests or not remains an issue for debate even among India's scientists and nuclear experts.<sup>48</sup> According to a former Air Marshal of the Indian Air Force, such confusion and especially this adaptation of a moratorium on testing as part of India's nuclear doctrine makes India's nuclear deterrence 'underdeveloped, unreliable and unsafe.'<sup>49</sup>

There are also confusions about some of the expressions of the PMO's press release of 4 January 2003 which remains India's official nuclear doctrine. Sometimes this is seen as out of tune with the DND. For instance, it had included the concept of 'massive' retaliation, which seems extremely provocative and needs to be rectified. This expression used in this press release (Para iii) was a discernable shift from the DND, which had used the word 'sufficient' retaliation, indicating the possibility of political choices to deliver punishment that the aggressor would find 'unacceptable.' But what is 'unacceptable' also remains culture-specific and needs to be calculated and/or communicated.

In the case of India, both these expressions remain undefined and therefore misplaced. Ali Ahmed has posited that the Indian nuclear doctrine 'requires a shift away from "massive punitive retaliation" in favour of a "flexible punitive retaliation".'<sup>50</sup> Similarly, what is 'unacceptable' also remains subject to interpretation. To quote from Patrick M. Morgan, it has to be based on 'understanding the opponent's cost-benefit calculations' and

it normally means ‘destroying much or all of the enemy’ as a viable society, which is ‘presumed to be unacceptable to any rational government.’<sup>51</sup> Given that nuclear deterrence hinges on rational behaviour, resolve and credible communications, such unqualified aberrations can be potentially hazardous and remain a cause of constant irritation in peacetime.

## **Conclusion**

To conclude, the cascading crises of the initial years following India’s nuclear tests of May 1998, especially the Kargil conflict of 1999, continue to have a critical footprint in India’s nuclear doctrinal development. This conflict forced New Delhi to announce an explicit nuclear doctrine. No doubt, such an articulation has been partly responsible for ensuring its efficacy in the last ten years. But rapidly changing times threaten to make extant formulations outdated and less effective.

- First and foremost, this rapidly changing ground situation in the region clearly calls for an annual or biannual public review of the nuclear doctrine by the carefully selected NSAB. As in most other nuclear weapons states, such reviews must become part of regular exercise involving relevant governmental agencies with inputs from relevant public institutions.
- Second, to bring back some of the original ethos of disseminating these issues more widely and, if possible, subjecting them to public discussion and debate also remains a need of our times. Since the extremely destructive nature of nuclear weapons calls for them to be put under the sole control of the people’s popular representatives, especially the civilian political leadership, wider public education on these issues is needed to ensure a robust and stable deterrence.
- Third, in spite of rhetoric claiming the opposite, India’s nuclear doctrine remains focused on Pakistan. China as the target remains only rhetoric. Even with Pakistan, the doctrine does not address threats that flow from the emerging possibilities of terrorism, proliferation and even internal political sabotage.
- Fourth, India’s nuclear doctrine does not address difficulties that sprout from new and aspirant states in the neighbourhood like North

Korea, Iran, even Myanmar. India must have a policy stance to enable it to respond to situations at both the political and military levels.

- And fifth, with expanding nuclear assets, India's nuclear doctrine has to evolve from, to use Scott Sagan's words, 'assertive' to 'delegative' format, with submarine commanders being authorised to independently release nuclear devices.<sup>52</sup> There seems no debate or articulation on how India seeks to achieve this decentralisation of authority.

A dynamic nuclear doctrine, in the end, must be able to anticipate current as well as future trends and provide direction for the country's soldiers and scientists; to evolve systems, technologies, training and guidelines in a cost-effective manner of building brick by brick rather than dissipating their precious resources and energies in constant ad hoc firefighting, causing fear, frustration and fatigue. Communications with one's adversaries remain another absolute must, as deterrence lies not in its being but in believing it. A former foreign secretary of Pakistan believes that 'After Kargil, "limited" conventional war is no longer an option and must never be considered. Doctrines such as Cold Start and introduction of ABMs can only undermine strategic stability ... generating an unnecessary arms race.'<sup>53</sup> This only shows the continued dilemma of extreme views cohabiting without attempts to interact and blend to evolve a more grounded, nuanced and effected narrative. This calls for providing, not emotional appeals, but logical explanations aimed at bridging reality and rhetoric on India's nuclear doctrine.

1 Elizabeth Wishnick, *Mending Fences: the Evolution of Moscow's China Policy from Brezhnev to Yeltsin* (London: University of Washington Press, 2001), p. 39; Rosemary Foot, *The Practice of Power: US Relations with China since 1949* (Oxford: Oxford University Press, 1997), p. 189.

2 For full copies of all these statements and documents regarding India's nuclear doctrine please see <http://www.indianembassy.org/special/cabinet/Primeminister/pmspeeches.htm>.

3 Colin S. Gray, *Second Nuclear Revolution* (Boulder, CO: Lynne Rienner, 1999), p. 154.

4 Caroline Friedman and Teresita Schaffer, 'India's Energy Options: Coal and Beyond,' in *CSIS South Asia Monitor* (Washington, DC), no. 132 (24 August 2009), p. 2; Youssef M. Ibrahim, 'Oil Shocks and the Reshaping of the Oil Industry,' in *The 1979 'Oil Crisis': Legacy, Lessons, and Lasting Reverberations* (Washington, DC: The Middle East Institute, Special Issue of Viewpoints, August 2009), p. 32.

5 Brahma Chellaney, *Securing India's Future in the New Millennium* (Delhi: Orient Longman, 1999), p. 222.

6 Mention of 'explosions' was deliberate in order to leave India the option of conducting non-explosive nuclear tests. See Suo Moto Statement by Prime Minister Shri Atal Bihari Vajpayee in Parliament on 27 May 1998. Available at <http://www.indianembassy.org/pic/pmparliament.htm>; also see 'Evolution of India's Nuclear Policy' (Paper laid on the table of the House), 27 May 1998. Available at <http://www.indianembassy.org/pic/nuclearpolicy.htm>.

7 PM's *Statement in Parliament on 'Bilateral Talks with United States,'* 15 December 1998. Available at [http://www.indianembassy.org/special/cabinet/Primeminister/pm\(india-us\).htm](http://www.indianembassy.org/special/cabinet/Primeminister/pm(india-us).htm).

8 Shaun Gregory, 'Nuclear Command and Control in South Asia,' in Deepa M. Ollapally, ed., *Controlling Weapons of Mass Destruction: Findings from USIP-sponsored Projects* (Washington, DC: US Institute of Peace, September 2001), pp. 32–36.

9 Opening Remarks of the National Security Adviser Mr Brajesh Mishra at the Release of the Draft Report and to see the Draft Report of the National Security Advisory Board on Indian Nuclear Doctrine, see <http://meaindia.nic.in/disarmament/dm17Aug99.htm>.

10 M.V. Ramana, 'Ten Years after Pokhran: Deeper into the Morass,' *The Hindu* (New Delhi), 11 May 2009. Available at <http://www.hindu.com/mag/2008/05/11/stories/200851150020100.htm>.

11 For the full draft please see 'India's Draft Nuclear Doctrine,' *Arms Control Today*, July/August 1999. Available at <http://www.armscontrol.org/epublish/1/23>.

12 'The Cabinet Committee on Security Reviews Operationalization of India's Nuclear Doctrine,' 4 January 2003. Available at <http://pib.nic.in/archieve/lreng/lyr2003/rjan2003/04012003/r040120033.html>.

13 India promptly enacted its WMD Law on export controls in May 2005 and it has become part of the FMCT negotiations that opened for discussion at the Conference on Disarmament in Geneva in July 2008.

14 P.R. Chari, 'India's Nuclear Doctrine: Confused Ambitions,' *Nonproliferation Review*, vol. 7, no. 3 (Fall/Winter 2000), p. 124.

15 For theoretical debates on the evolution of a 'Limited War' doctrine and strategies, see Swaran Singh, *Limited War: The Challenge of US Military Strategy* (New Delhi: Lancer Books, 1995).

16 Arshi Saleem Hashmi, 'South Asia's Growing Vulnerability to Extremism and Terrorism in the Coming Decade: Is There a Way Forward?,' *Focus* (Islamabad: IRS), vol. xxvii, no. 1 (2009), pp. 18–19.

17 Waheguru Pal Singh Sidhu, 'India's Nuclear Use Doctrine,' in Peter R. Lavoy, Scott D. Sagan and James J. Wirtz, eds., *Planning the Unthinkable: How New Powers Will Use Nuclear, Biological, and Chemical Weapons* (New York: Cornell University Press, 2000), p. 127.

- 18 Raza Mumtaz, 'Search of Peace: India–Pakistan Talks on June 27,' *The Pakistan Times* (Rawalpindi), 3 June 2004. Available at <http://pakistantimes.net/2004/06/03/top.htm>.
- 19 Zhang Guihong, 'The Rise of China: India's Perceptions and Responses,' *South Asian Survey* (New Delhi), vol. 13, no. 1 (2005), pp. 93–102; Mohan Malik, *India–China Relations: Giants Stir, Cooperate and Compete* (Honolulu, Hawaii: APCSS: Special Assessment), October 2004, p. 5; B. Murlidhar Reddy, 'Natwar's Proposal on Nuclear Doctrine Innovative: Pakistan,' *The Hindu* (New Delhi), 3 June 2004, p. 12.
- 20 Ashley J. Tellis, *India's Emerging Nuclear Posture: Between Recessed Deterrence and Ready Arsenal* (Santa Monica, CA: RAND, 2001), p. 411.
- 21 James M. Acton, 'Nuclear Power, Disarmament and Technological Restraint,' *Survival* (London), vol. 51, no. 4 (2009), p. 107.
- 22 Scott Sagan, 'The Case for No First Use,' *Survival* (London), vol. 51, no. 3 (2009), pp. 175–6.
- 23 See 'Draft Report of National Security Advisory Board on Indian Nuclear Doctrine,' 17 August 1999 (clause 2.4). Available at [http://www.indianembassy.org/policy/CTBT/nuclear\\_doctrine\\_aug\\_17\\_1999.html](http://www.indianembassy.org/policy/CTBT/nuclear_doctrine_aug_17_1999.html).
- 24 Marcus Kim, 'India,' in John Gless, Darryl A. Howlett, Start Poore, eds., *Neorealism Versus Strategic Culture* (Aldershot: Ashgate, 2004), p. 97.
- 25 S. Paul Kapur, 'Ten Years of Instability in a Nuclear South Asia,' *International Security* (MIT), vol. 33, no. 2 (Fall 2008), p. 90; Walter C. Ladwig III, 'A Cold Start for Hot Wars?: The Indian Army's New Limited War Doctrine,' *International Security* (MIT), vol. 32, no. 3 (2007–08), p. 169.
- 26 C. Raja Mohan, 'Fernandes Unveils "Limited War" Doctrine,' *The Hindu* (New Delhi), 25 January 2000; V.R. Raghavan, 'Limited War and Strategic Liability,' *The Hindu* (New Delhi), 2 February 2000.
- 27 Ashley J. Telis, C. Christine Fair, Jamison Jo Medby, *Limited Conflicts under the Nuclear Umbrella: Indian and Pakistani Lessons from the Kargil Crisis*, Rand Monograph Report, 2001, p. 6; Suba Chandran, 'Limited War with Pakistan: Will It Secure India's Interests?,' ACDIS Occasional Papers (University of Illinois at Urbana–Champaign, August 2004), p. 13.
- 28 Walter C. Ladwig III, 'A Cold Start for Hot Wars: The Indian Army's New Limited War Doctrine,' *International Security* (MIT), vol. 32, no. 3 (Winter 2007–08), p. 158.
- 29 *Ibid.*, p. 164; also see Dennis M. Gormley, *Missile Contagion: Cruise Missiles Proliferation and the Threat to International Security* (Westport, CT: Praeger Publishers, 2008), p. 139.
- 30 Kanishkan Sathasivam, *Uneasy Neighbours: India, Pakistan and US Foreign Policy* (Aldershot: Ashgate, 2005), p. 162.
- 31 *Ibid.* p. 168.
- 32 James Holmes, Andrew C. Winner, Toshi Yoshihara, *Indian Naval Strategy in the 21st Century* (London: Taylor and Francis, 2009), p. 151.
- 33 Ali Ahmed, 'Military Doctrines: Next Steps,' *IDSA Comment*, 16 August, 2010. Available at [http://www.idsa.in/idsacomments/MilitaryDoctrinesNextsteps\\_aahmed\\_160810](http://www.idsa.in/idsacomments/MilitaryDoctrinesNextsteps_aahmed_160810).
- 34 Ali Ahmed, 'Exit Points and the Updation of Cold Start Doctrine,' *IDSA Strategic Comments* (New Delhi, 22 April 2009). Available at <http://www.idsa.in/publications/stratcomments/AliAhmed220409.htm>.
- 35 Dinshaw Mistry, 'The Strategic Significance of India's Nuclear, Missile, Space, and Missile Defence Forces,' in Lowell Dittmer, ed., *South Asia's Nuclear Security Dilemma: India, Pakistan, and China* (Armonk, NY: M.E. Sharpe, 2005), p. 52.
- 36 Rajat Pandit, 'India Lags Behind Pakistan in Missiles,' *The Times of India* (New Delhi), 2 February, 2009. Available at <http://timesofindia.indiatimes.com/India/India-lags-behind-Pakistan-in-missiles/articleshow/4060400.cms>.

37 Robert G. Loewenthal, 'Cold War Insights into China's New Ballistic-Missile Submarine Fleet,' in Andrew S. Erickson, Lyle J. Goldstein, William S. Murray and Andrew R. Wilson, eds., *China's Future Nuclear Submarine Force* (Annapolis, MD: The China Maritime Studies Institute and the US Naval Institute Press, 2007), p. 297.

38 Stephen P. Cohen and Sunil DasGupta, eds., *Arming without Aiming: India's Military Modernization* (Washington, DC: The Brookings Institution, 2010), p. 23.

39 'India Arms for the Future,' *Strategic Comments* (London), vol. 15, issue 1 (February 2009), pp. 1–2.

40 Pallava Bagla, 'INS Arihant is an Indian Design: Anil Kakodkar,' *The Hindu* (New Delhi), 16 August 2009, p. 1; K.S. Jayarman, 'India's Nuclear Sub Doesn't Have Working Reactor Yet,' *Thaindian News*, 13 August 2009. Available at [http://www.thaindian.com/newsportal/uncategorized/indias-nuclear-sub-doesnt-have-working-reactor-yet\\_100231849.html](http://www.thaindian.com/newsportal/uncategorized/indias-nuclear-sub-doesnt-have-working-reactor-yet_100231849.html).

41 Rajat Pant, 'N-submarine to Give India Crucial Third Leg of Nuke Triad,' *The Times of India* (New Delhi), 27 July 2009. Available at <http://timesofindia.indiatimes.com/NEWS/India/N-submarine-to-give-India-crucial-third-leg-of-uke-triad/articleshow/4823578.cms>.

42 Raja Menon, *A Nuclear Strategy for India* (New Delhi, Sage, 2000), p. 104; Raj Chengappa, *Weapons of Peace: The Secret Story of India's Quest to be a Nuclear Power* (New Delhi: HarperCollins, 2000), p. 228.

43 Harsh V. Pant, *Contemporary Debates in Indian Foreign and Security Policy* (London: Palgrave Macmillan, 2008), pp. 91–92; Robert M. Hathaway, 'The US–India Courtship: From Clinton to Bush,' in Sumit Ganguly, ed., *India as an Emerging Power* (London: Frank Cass, 2003), p. 14; Sanjay Badri-Maharaj, 'Ballistic Missile Defence for India,' *Bharat Rakshak*. Available at <http://www.bharat-rakshak.com/IAF/Info/BMD.html>.

44 Teresita Schaffer, *India and United States in the 21st Century: Reinventing Partnership* (Washington, DC: Centre for Strategic and International Studies, 2009), pp. 99–103; Peter J. Brown, 'India–US Build Stronger Ties in Space,' *Asia Times* (Hong Kong), 7 August 2009. Available at [http://www.atimes.com/atimes/South\\_Asia/KH07Df02.html](http://www.atimes.com/atimes/South_Asia/KH07Df02.html).

45 Rahul Roy-Chaudhury, 'India's Nuclear Doctrine: A Critical Analysis,' *Strategic Analysis* (New Delhi), vol. 33, no. 3 (May 2009), pp. 412, 413.

46 Vishal Thapar, 'India Defines Outer Limit of Weapons Programme,' *IBN Live*, 11 August 2009. Available at <http://ibnlive.in.com/news/india-defines-limit-of-weapons-programme/98999-3.html>.

47 Rajat Pant, 'N-submarine to Give India Crucial Third Leg of Nuke Triad,' *The Times of India* (New Delhi), 27 July 2009. Available at <http://timesofindia.indiatimes.com/NEWS/India/N-submarine-to-give-India-crucial-third-leg-of-uke-triad/articleshow/4823578.cms>.

48 Subrata K. Mitra and Jivanta Schöttli, 'The New Dynamics of Indian Foreign Policy and its Ambiguities,' *Irish Studies in International Affairs*, vol. 18 (2007), p. 20.

49 Brijesh D. Jayal, 'The Indian Nuclear Doctrine: Good in Theory, But Not Credible in Practice,' *The Tribune* (Chandigarh), 11 November 2008. Available at <http://www.tribuneindia.com/2008/20081116/edit.htm~1>.

50 Ali Ahmed, 'Reviewing India's Nuclear Doctrine,' in *IDSIA Policy Brief*, 24 April 2009 (New Delhi). Available at [http://www.idsa.in/policy\\_briefs/AliAhmedIndiaNuclearDoctrine.pdf](http://www.idsa.in/policy_briefs/AliAhmedIndiaNuclearDoctrine.pdf), p. 102.

51 Patrick M. Morgan, *Deterrence Now* (Cambridge: Cambridge University Press, 2003), p. 15.

52 Scott D. Sagan, 'The Perils of Proliferation: Organization Theory, Deterrence Theory and the Spread of Nuclear Weapons,' *International Security* (MIT), vol. 18, no. 4 (1994), p. 69.

53 Shamshad Ahmad, 'Stable Nuclear Security Order,' *The Nation*, 22 August 2009. Available at <http://www.nation.com.pk/pakistan-news-newspaper-daily-english-online/Opinions/Columns/22->

Aug-2009/Stable-nuclear-security-order/1.



# Chapter 5

## Pakistan's Post-test Nuclear Use Doctrine

Bhumitra Chakma

### Introduction

The nuclear doctrine of a state specifies its formal and informal plans for the use of nuclear weapons to achieve intended political, military or other objectives. It sets out principles and methods which are to guide procurement, deployment and employment of the country's nuclear assets. It details how warheads and delivery systems will be developed or procured, what will be the alert status of weapons, where they will be kept in peace and wartime, and who will authorise the use of nuclear weapons should necessity arise to do so. It also elaborates the command and control procedures so that no unauthorised or inadvertent use of nuclear weapons does occur.

Conceptually, four key sources can be discerned for the origins of nuclear doctrine. First, nuclear doctrine is a product of rational choice by a state to thwart external threat and safeguard national security. This perspective stems from the arguments of realist theory. Second, organisational interests and biases of military organisations determine the nature of a country's nuclear doctrine. Third, national strategic culture – the country's unique history, religious traditions and perception of its own identity – greatly influence the development of a state's nuclear doctrine. And, fourth, the demonstration impact of global strategic culture and learning from other states' nuclear forces influence the nuclear doctrine of a state.<sup>1</sup> Of the four perspectives, it seems that the first two views have got greater, specific relevance for Pakistan.

Pakistan has yet to announce a formal nuclear doctrine although it declared the setting up of a National Command Authority (NCA) in February 2000. Prior to the conduct of nuclear tests in May 1998, little is

known about the Pakistani nuclear doctrine and its command and control structure. However, following the nuclear tests, Islamabad paid some attention to doctrinal development in view of its overt, albeit de facto, nuclear status. Although no official announcement has appeared in this regard, it is possible to weave a putative Pakistani nuclear doctrine which emerged through operational level activities and occasional statements and interviews of Pakistani officials, military and political leaders.

This chapter examines the development and evolution of Pakistani nuclear doctrine since the May 1998 nuclear tests. It identifies the dilemmas and challenges of Islamabad in crafting a suitable use doctrine. In the Conclusion, it extrapolates the future directions of the Pakistani use doctrine.

## **Nuclear Tests and their Aftermath: Doctrinal Developments**

Islamabad pursued a policy of ‘opacity’<sup>2</sup> before it tested nuclear weapons in May 1998. Opacity forced the Pakistani government to adopt an approach of extreme secrecy in pursuing its nuclear weapons programme. Due to the paucity of government source materials, it is not clear whether Pakistan developed appropriate nuclear concepts or principles that were to guide its use of nuclear weapons. Only indirectly, ambiguously Islamabad indicated that its nuclear weapons were to thwart India’s conventional as well as nuclear threats.

Following the tests, Pakistan declared itself a ‘nuclear power’ and replaced the policy of opacity with a posture of ‘minimum nuclear deterrence.’ Subsequently, Islamabad added the term *credible* into its nuclear posture. The Pakistani government adopted a ‘quantitative’ force-building approach in the aftermath of its May 1998 nuclear tests, specifying both short-term (2000–05) and long-term (2000–20) numerical force-development targets.<sup>3</sup> In the ensuing years Pakistan, however, had to modify its initial perception of minimum deterrence and force-building approach owing to a fluid strategic environment. The term ‘credible’ was added to its concept of minimum deterrence to induce flexibility in its nuclear posture and in its force- building plans.

To build the intended deterrent and institutionalise nuclear decision-making, Islamabad announced the setting up of a National Command

Authority (NCA) on 2 February 2000. The authority to develop, deploy and employ nuclear weapons and control over the country's nuclear assets and strategic organisations was delegated to this apex nuclear decision-making body. By late 2000, the NCA became functional and all strategic organisations were brought under its control.

Besides the setting up of the NCA, Islamabad has hardly announced anything substantive about its minimum nuclear deterrence posture or nuclear use doctrine. It is yet to clearly state under what specific circumstances it would employ nuclear weapons, although Pakistani officials at times have indicated that Pakistan would follow a policy of nuclear first use. There is still profound ambiguity about its deployment and alert posture and about its plans for nuclear use. This ambiguity is significant, because it could be a part of Pakistan's nuclear strategy. After all, ambiguity served the Pakistani strategic objectives well in the pre-tests era and a similar perception might have induced Islamabad to refrain from officially announcing a nuclear doctrine.

In the absence of government source materials, it is difficult to be definitive about the Pakistani nuclear use doctrine. Yet it is possible to weave some aspects of its putative nuclear doctrine that have emerged through occasional statements and interviews of government officials, political and military leaders and the operational level activities of the Pakistani armed forces.

### ***Principle of Nuclear First Use***

Although it was never publicly stated before the nuclear tests were undertaken, the nuclear first-use principle was inherent in the Pakistani deterrence assumption from the beginning of the nuclear weapons programme. Zulfikar Ali Bhutto launched the weapons programme in the early 1970s based on the argument that his country needed nuclear weapons to thwart Indian conventional and nuclear aggression. The first-use principle was inherent in it because Islamabad was ready to use nuclear weapons if India had undertaken conventional aggression against Pakistan. During the 1990 Kashmir crisis, it was found that the Pakistan Army readied F-16 aircraft for possible nuclear delivery if India had carried out air strikes in Kashmir.<sup>4</sup> Following the nuclear tests, Nawaz Sharif, the then Pakistani prime minister, substantiated this long-standing Pakistani policy

when he stated ‘[T]hese weapons are to deter aggression, whether nuclear or conventional.’<sup>5</sup> It implied that Islamabad would use nuclear weapons *first* in a conventional context.

Islamabad made the country’s nuclear first-use policy further apparent in the tests’ aftermath when it categorically rejected New Delhi’s offer of a ‘No First Use’ (NFU) agreement. Rejecting the offer, Pakistan’s then foreign secretary, Shamsad Ahmed, said that it was ‘unacceptable’ to the Pakistani government and argued whether any such agreement had ever worked in the past anywhere in the world.<sup>6</sup> The adoption of a first-use principle constituted a key pillar of Pakistan’s nuclear use doctrine and left profound implications for its force-building, deployment, alert and targeting postures.

Two major factors prompted Islamabad to adopt a first-use policy. First, a first-strike nuclear force was thought affordable for Pakistan in financial terms, consistent with its ‘minimum’ nuclear deterrence posture, and was less cumbersome to build and manage. Its command and control system was also assumed to be less complex.<sup>7</sup> Second, as Pakistan was the conventionally weaker side in the Indo–Pakistani power equation, a first-use policy was conceived as an ‘equaliser.’ Islamabad’s adoption of the first-use principle was reminiscent of NATO’s policy during the Cold War against conventionally stronger Warsaw Pact forces in the European theatre. Third, a first-use policy, it was considered, would enhance the credibility of Pakistan’s minimum deterrence and prevent India’s nuclear coercion. As Pakistanis argued: ‘a no-first-use policy may be construed by the conventionally stronger side as a licence to exploit [the conventionally inferior power].’<sup>8</sup> Therefore, a first-use policy was rather an obvious choice for Pakistan.

Pakistan’s strategic analysts also support their country’s adoption of a nuclear first-use principle and Islamabad’s rejection of India’s offer for an NFU agreement, and echo arguments noted above. They argue that an NFU policy does not address the security dilemma that Pakistan confronts, particularly given the fact that India’s military capabilities far outweigh Pakistan’s.<sup>9</sup> As long as war remains possible in South Asia and asymmetrical conventional capabilities disadvantage Pakistan, Islamabad has to pursue a first-use posture to neutralise its strategic disadvantage.<sup>10</sup>

The strategic consequences of Pakistan’s adoption of a ‘First Use’ doctrine remain uncertain and perhaps negative, because its parameters are

shrouded in ambiguity. Islamabad has yet to officially articulate the conditions – the so-called ‘red lines’ – that will prompt a Pakistani first use of nuclear weapons. However, a former Pakistani air force officer argued that the following conditions could trigger a first use of nuclear weapons by Pakistan:

1. Penetration of Indian forces beyond a certain defined line or crossing of a river.
2. Imminent capture of an important Pakistani city like Lahore and Sialkot.
3. Destruction of Pakistan’s conventional armed forces or other assets beyond an unacceptable level.
4. Attack on any of Pakistan’s strategic targets such as dams or nuclear installations like Tarbela, Mangla, Kahuta, Chashma, etc.
5. Imposition of blockade on Pakistan to an extent that it strangulates the continued transportation of vital supplies and adversely affects the war-waging stamina of the country.
6. Indian crossing of the Line of Control to a level that threatens Pakistan’s control over Azad Kashmir.<sup>11</sup>

A careful assessment of the above formulation indicates that it is indeed of little help to remove the ambiguities of the conditions or red lines that would lead Pakistan to use nuclear weapons first. For example, the factor ‘Penetration of Indian forces beyond a certain defined line,’ if anything else, is no more than a vague assertion of a condition, as for Pakistan it is very difficult, in a strategic context, to draw such a definitive line. Due to the lack of strategic depth, and as major Pakistani cities and military installations are not very far from the border, any crossing or even non-crossing, i.e. Indian troops movement along the border, may appear threatening to Islamabad, which highlights Pakistan’s dilemma in defining such a line. In a similar fashion, condition 5 may mean different things to different people and in different circumstances, thereby highlighting the ambiguity in the Pakistani red lines of nuclear first use.

The closest official statement on this issue is perhaps an interview of Lt General Khalid Kidwai, Director General of the Strategic Plans Division, given to a group of Italian researchers (he later denied it to have been official), in which he said that Islamabad would use nuclear weapons if:

- a. India attacks Pakistan and conquers a large part of its territory.
- b. India destroys a large section of its land and air forces.
- c. India proceeds to the economic strangulation of Pakistan.
- d. India pushes Pakistan into political destabilisation or creates large-scale internal subversion.<sup>12</sup>

Although this provides a rough idea about Pakistani thinking, it still does not remove the ambiguities that are inherent in the Pakistani threshold of nuclear first strike. For example, in the above formulation it is not very clear what is meant by and what are the operational parameters of notions such as ‘conquers a large part of its territory,’ ‘political destabilisation,’ ‘large scale internal subversion,’ and ‘economic strangulation.’ These are essentially subjective notions in the Pakistan–India context and may mean different things in different times and situations. How they are defined in peacetime may be completely different from in a crisis. If one carefully examines the spatial threshold context, the vagueness of the notions immediately becomes evident. For example, how much penetration of Indian forces into Pakistani territories will elicit Pakistani nuclear first strike is at best vague and subjective. It may mean different things in different parts of the country, which involves emotions, symbolism, actual fear of disintegration, etc. IISS analysts also speculate:

One can imagine that the critical distance would vary according to the location: the threshold could be low in Pakistani Kashmir because of the symbolic value of the region, and also in Punjab, the ‘core’ of Pakistani power. This would be particularly true if the major city of Lahore, located only 30 km from the border, were threatened.<sup>13</sup>

Therefore, the inexactness of the Pakistani formulation is all too evident in terms of spatial threshold.

Furthermore, the conditions under which Islamabad will use nuclear weapons first if ‘India pushes Pakistan into political destabilisation or creates large-scale internal subversion’ are deeply problematic. Indeed, it is a very complex issue to define ‘political destabilisation’ in the India–Pakistan context, given that the two countries frequently accuse each other of interfering in their internal affairs. This issue becomes even more complex in view of the Kashmir dispute.

Pakistanis generally claim that ‘the use of nuclear weapons as a war-fighting tool is not a contemplated doctrine in Pakistani strategic

thinking.’<sup>14</sup> However, given Pakistan’s first-use policy and the country’s weakness in conventional capabilities relative to India, it is more likely that Islamabad would consider nuclear weapons in terms of war fighting. During the 2001–02 Indo–Pakistani military stand-off, General Musharraf warned New Delhi that ‘[a]ny incursion by the Indian forces across the LoC [Line of Control] even by an inch will unleash a storm that will sweep the enemy.’<sup>15</sup> It meant that Pakistan would fight with nuclear weapons to stop the advancing Indian forces. Furthermore, given that the potential for limited conflict in Kashmir remains high (similar to that of the 1999 Kargil conflict), it is only natural for Pakistan to be prepared for limited nuclear war. Peter Lavoy argues that ‘escalation dominance at all rungs of the military ladder – from low-intensity conflict to conventional war and all the way to nuclear war’ remains the central feature of Pakistan’s war strategy.<sup>16</sup>

Following the nuclear tests, limited war between India and Pakistan emerged as a possibility for a variety of reasons. First, some quarters in Pakistan began to think that more aggressive policies could be pursued in Kashmir under the shield of nuclear weapons. For example, Shirin Mazari argued that ‘with the nuclear deterrence making all out war between Pakistan and India a receding reality, the opportunity for limited warfare in Kashmir becomes a viable option.’<sup>17</sup> She indeed echoed the thinking of many Pakistanis within the government and the military of such an option that nuclear weapons have opened for Pakistan with regard to the Kashmir dispute.

From a Pakistani standpoint, conventional warfare remains the key worry for the Pakistani defence planner even after the introduction of nuclear weapons into the arsenals of India and Pakistan. General Musharraf maintained that the introduction of nuclear weapons ‘does not mean that conventional war has become obsolete. In fact conventional war will still remain the mode of conflict in any future conflagration with our traditional enemy.’<sup>18</sup> Further, the possibility of limited war increased following India’s formulation of a ‘Limited War’ doctrine in the aftermath of the 1999 Kargil conflict and the adoption of the ‘Cold Start’ military doctrine following the 2001–02 military stand-off.

To address the threat of limited nuclear war, Pakistan needs to develop a contingency plan with low-yield weapons for use against an Indian army advancing towards Pakistani territory,<sup>19</sup> as well as to enforce intra-war deterrence. The use of low-yield nuclear warheads will delay the advance of

an Indian army towards Pakistan, which will help Islamabad to buy time to bring the international community into the conflict. The use of such warheads is also advantageous because it may result in less collateral damage, since they would be used in sparsely populated border areas.<sup>20</sup> Indeed, Pakistani strategic discourse is based on the premise that ‘its military should train to fight a nuclear war, for only then will its deterrence be effective.’<sup>21</sup>

The issue of when and at what stage to use nuclear weapons first in a crisis or war is a serious strategic dilemma that Pakistan confronts. Pakistani officials insist that Pakistan’s nuclear weapons are for defence only and that Pakistan will use nuclear weapons only as a *last* resort if its survival is threatened.<sup>22</sup> Despite this claim, in reality it is not very clear from the Pakistani assertions whether Islamabad will use nuclear weapons at the beginning of a crisis/war or towards the end and only as a last resort. As a Pakistani analyst maintains: ‘It is not clear how far Pakistan will have to be pushed to decide on a first nuclear strike.’<sup>23</sup> Also, the trouble is that ‘survival is threatened’ can be interpreted in multiple ways at different stages of a crisis or war. Pakistan’s former foreign secretary, Aga Shahi, points out that it is extremely difficult to define when is ‘last’ from Pakistani point of view.<sup>24</sup>

This problem is further exacerbated for another crucial reason. Even if Pakistan undertakes a first nuclear strike against India, its strategic gains from doing so would be doubtful for the simple reason that after the Pakistani first strike, India still will retain sufficient nuclear capability to undertake a retaliatory strike that may lead to the collapse of the Pakistani state.<sup>25</sup> Moreover, even if New Delhi decides not to retaliate, Pakistan’s gains will still be questionable. If Islamabad strikes first, New Delhi will certainly receive overwhelming international support, including support from the United Nations Security Council. Its ‘political and economic cost’ will be simply unbearable for Pakistan.<sup>26</sup> Islamabad indeed confronts formidable dilemmas and challenges in its attempts to construct a viable nuclear first use and war-fighting posture.

### ***Deployment and Alert Status***

The deployment and alert status of Pakistan is not clearly known. Islamabad claims that Pakistan has not deployed nuclear weapons. Pakistan at this



stage does not possess a ready nuclear arsenal, neither, probably, has it intended to upgrade its nuclear arsenal to such a status. The strategic thinking regarding this issue within Pakistani military and political circles is that while readiness to use nuclear weapons enhances the credibility of the nuclear deterrent, it is preferable not to create a ready nuclear arsenal. There is no indication from the Pakistani authorities that any weapon has been mated with the delivery systems. It is believed that fissile cores are kept separately from the warheads and are stored in different places. According to George Perkovich, Pakistan's nuclear weapons are reportedly stored in component form, with the fissile core separated from non-nuclear explosives.<sup>27</sup> Instead of opting for a ready arsenal, Pakistan has adopted an approach that ensures quick assembly of nuclear weapons within a relatively short period of time.

How quickly Pakistan can assemble nuclear devices is again a matter of speculation, and experts' views in this regard range from 'minutes' to 'hours' to 'days.' Former Chief of Army Staff General (Retd.) Mirza Aslam Beg claims that various components of weapons are kept 'many miles away' from the delivery systems, hence the gap between the start of assembling various components and making a weapon ready for launch can be hours, or even days.<sup>28</sup>

Despite Islamabad's claim of 'non-deployment' of nuclear weapons and its decision not to create a ready arsenal, the actual deployment status of Pakistani nuclear weapons remains a matter of interpretation. Islamabad began the process of integrating nuclear weapons with the armed forces following the 1998 nuclear tests. Pakistan has also created a tri-command structure within the three armed services for the purpose of integrating nuclear weapons with the armed forces. The process of integration is also visible in other operational activities of the armed forces. For example, in July 2002, the Strategic Plans Division participated in the week-long joint forces war game at the National Defence College.<sup>29</sup> Strategic force commanders are now regularly invited to participate in the meetings of core commanders. Pakistan's storage facilities are basically located in the military bases. This is consistent with the conception of deployment, which means that weapons components have been transferred to military units for storage and for rapid mating of components with the delivery systems. This led David Albright to conclude that Pakistan's case is indeed a 'partial deployment.'<sup>30</sup>

The deployment status of the Pakistani nuclear forces is to a large extent dependent on factors beyond its control. Pakistan's nuclear posture in general and its deployment and alert status in particular are critically influenced by the 'India factor.' The perception of threat level, and particularly at a time of crisis, determines the deployment status of Pakistani nuclear weapons. For example, during the 1999 Kargil conflict and the 2001–02 military stand-off, Pakistan reportedly made precautionary nuclear preparations. Therefore, it is difficult to determine the exact status of Pakistan's nuclear deployment and alert status.

### *Nuclear Targeting*

Pakistan is yet to reveal anything officially about its nuclear targeting policy. However, strategic rationale, technical considerations, and views of the Pakistani strategic community indicate that Pakistan has adopted a counter-value targeting policy.<sup>31</sup> As early as 1987, Zia-ul Haq obliquely alluded to such a strategy for Pakistan when he told the Indian Prime Minister Rajiv Gandhi: 'if your forces cross our borders by an inch, we are going to annihilate your cities.'<sup>32</sup>

India's geographical depth makes a Pakistani counter-force nuclear targeting policy less viable and to a large extent ineffective. India's military facilities are dispersed, some are beyond the Pakistani reach. Major Indian cities, population and industrial centres, on the contrary, are within striking range of the Pakistani missiles. It is, therefore, not very surprising that Islamabad has adopted a counter-value targeting policy.

Several factors make a counter-value nuclear targeting policy a natural choice for Pakistan. First, Pakistan's minimum nuclear deterrence principle, the small size of its nuclear arsenal and a first-use posture all make Pakistan opt for counter-value nuclear targeting. Second, India's geographical depth makes a Pakistani counter-force nuclear targeting policy less viable and to a large extent ineffective. India's military facilities are dispersed, hence, as Farah Zhara notes, it will be difficult for Pakistan to reach Indian military targets as it lacks the quality and quantity of nuclear weapons for such targets.<sup>33</sup> Major Indian cities, population and industrial centres are, on the contrary, within striking range of Pakistani nuclear weapons. Thirdly, the relatively inaccurate delivery systems in Pakistan's armoury also make counter-value targeting more logical and helps to increase the credibility of

its nuclear deterrence. General Musharraf has also reportedly expressed the view that Pakistan should aim to have ‘enough missile capacity to reach anywhere in India and destroy a few cities, if required.’<sup>34</sup> Furthermore, Pakistan’s counter-value targeting strategy is also consistent with the Islamic context of strategy – employing ‘terror’ in warfare.<sup>35</sup> Pakistan, it should be noted, has since the 1980s attempted to integrate the Islamic context in its war-fighting strategy.

Therefore, the choice for Islamabad in regard to nuclear targeting is clear. In the words of Shirin Mazari, Director of the Institute of Strategic Studies (Islamabad), Pakistan has to adopt a counter-value targeting policy, as targeting Indian big cities and population centres like Bombay, New Delhi, Bangalore, etc. serves the intended strategic purpose of the Pakistani nuclear forces.<sup>36</sup> Naeem Ahmad Salik, a former Strategic Plans Division official, in a similar fashion takes the view that a multiplicity of targets such as ‘major population centres, industrial complexes, major military bases and communication hubs’<sup>37</sup> ought to be the targets of Pakistan’s nuclear weapons.

How viable in practice the Pakistani counter-value targeting policy will be remains to be seen. At least one problem, however, can be foreseen. It is questionable whether Islamabad will actually drop a nuclear bomb on Indian cities, given that they are inhabited by a large Muslim population. India and Pakistan in past wars never carried out large-scale strikes on each other’s big cities. It is unknown how Pakistan will address this non-strategic, yet no less significant, dilemma in its nuclear targeting policy.

### ***Who Controls the Button?***

Before the nuclear tests of May 1998, it is not exactly known what type of command and control structure Pakistan developed for the management of its nuclear forces and what employment strategy it adopted. Following the nuclear tests, however, Islamabad paid considerable attention to constructing a command and control system. In February 2000, as is noted above, Pakistan set up the National Command Authority to manage the nuclear deterrent and institutionalise nuclear decision-making.

In the absence of any official documents, it is difficult to be certain about Pakistan’s chain of command for the use of nuclear weapons. However, it is believed that Islamabad has adopted a delegative control system for the

employment of nuclear weapons.<sup>38</sup> A number of factors can be presented in support of this argument. First, as the weaker party in the asymmetrical power balance in South Asia, Pakistan is 'more vulnerable' to the risk of losing its 'deployed and undeployed nuclear assets to either conventional or nuclear attack' by India.<sup>39</sup> This condition, moreover, is exacerbated by Pakistan's lack of geographical depth, thereby making its nuclear assets and command structure vulnerable to Indian preemptive or surprise air attack.<sup>40</sup> Pakistani concern is that India, with its superior strike capability, might undertake a decapitating attack, which would drastically reduce Pakistan's ability to retaliate, or even bring it to naught. Islamabad, therefore, would want to ensure nuclear use by adopting a delegative and mobile nuclear command and control system.

Second, as is discussed in [Chapter 2](#), Pakistan has adopted a doctrine of massive retaliation and a policy of nuclear first use to offset its strategic vulnerabilities vis-à-vis India. In a similar fashion, it is very likely that Islamabad, to enhance the credibility of its nuclear deterrence, would adopt a delegative control system.

Third, if history is any guide, there should be little doubt that the Pakistani army, at least in the foreseeable future, will play a leading role in managing the country's security policy and nuclear forces. Indeed, the army, as discussed above, dominates Pakistan's nuclear command structure. The very composition of the nuclear command and control structure that Islamabad announced in February 2000 clearly reflects the army's leading role in the nuclear decision-making of Pakistan. Specifically, the formation and the modus operandi of the SPD, the focal point of Pakistan's nuclear activities, clearly reveal the dominant role of the Pakistan army in nuclear matters and in the management of the country's nuclear forces. As a retired Pakistani army general points out: 'There is no doubt that the military will continue to play a major role in the nuclear decision making process ... In the present environment, the final decision will probably rest with three people: the President, the Prime Minister, and the Army Chief.'<sup>41</sup> As the prime minister in Pakistan is generally hand-picked by the army, the nuclear decision-making is almost absolutely controlled by the military.<sup>42</sup> Against this backdrop, a pre-delegation of authority to field commanders to launch nuclear weapons will not be very surprising and certainly not inconsistent with the Pakistani style of managing the country's security policy. As a

leading Pakistani analyst concludes: ‘even corps commanders would be involved in the decision to use nuclear weapons.’<sup>43</sup>

Pakistan’s delegative control system is fraught with risks; it is bound to increase the likelihood of unauthorised or accidental nuclear use in a crisis-prone South Asian strategic environment. Since their independence in 1947, India and Pakistan have fought four wars and weathered numerous crises (major and minor). The simple equation is that the more crises and wars, the more likelihood of unauthorised or accidental nuclear launch. In recent years, terrorism has added a new twist to the Indo–Pakistani crisis-prone relationship; for example the terrorist attack on the Indian parliament in December 2001 set off a tense, escalatory and potentially explosive military stand-off that had clear nuclear connotations. How Pakistan’s pre-delegative command system will function in different crises is all but uncertain.

Furthermore, geographical proximity between India and Pakistan and the short flight time of delivery vehicles specifically make the Pakistani approach risky in a strategically volatile region like South Asia. The implication of the ‘geographical proximity’ factor for Pakistan’s nuclear strategy is that the Pakistani nuclear command and the field commanders would want assurance of nuclear use if deterrence fails, which concomitantly will decrease the safety and security of Pakistan’s nuclear assets and raise, primarily deriving from stress and miscalculation, the possibility of accidental or inadvertent nuclear use.

It is generally conceived that a robust early warning system helps to strengthen deterrence stability between two nuclear antagonists. In the South Asian context, however, an early warning system may prove to be less effective because of geographical proximity between the two adversaries.<sup>44</sup> It may even increase stress-related inadvertent use of nuclear weapons magnified by Pakistan’s strategy of pre-delegation. Even if an early warning system will help to build a stable deterrence in South Asia, the question remains how far will Pakistan, given its state of its technological capability, be able to construct a robust early warning system.

Pakistan’s adoption of a negative control posture, therefore, necessarily means that Islamabad emphasises certainty of nuclear use, which enhances the credibility of its nuclear deterrent while compromising the safety of nuclear weapons and increasing the likelihood of nuclear use. There is, of course, no reason to be exceedingly alarmist about Pakistan’s policy of pre-delegation or the safety and security of the Pakistani nuclear arsenal.<sup>45</sup>

Although the nuclear tests did not take place during the era of nuclear ambiguity and opacity, Islamabad (and also New Delhi) may have learned useful nuclear lessons from the experiences of a number of crises (i.e. the Kargil conflict, the 2001–02 military stand-off).<sup>46</sup> These may be helpful in developing doctrinal concepts, modifying operational procedures and managing nuclear forces during crises, conflicts and war.<sup>47</sup> However, as is discussed above, substantive problems remain with the Pakistan pre-delegation strategy. No one can be absolutely certain about non-use of nuclear weapons in a future crisis.<sup>48</sup>

## **Conclusion**

Pakistan's nuclear use doctrine is determined by its perception of insecurity stemming from its traditional rival, India, and the preferences of its military, although the country's culture also plays its part in the shaping of its strategic posture. The India factor and the preferences of the military will remain as the key factors in shaping the evolution of the country's nuclear doctrine.

Ambiguity will remain as an important element of Pakistani nuclear doctrine. Ambiguity in the past served Pakistan's strategic objectives in numerous ways and the Pakistani security community views its continued relevance even today. This has been an important factor in the Pakistani government not announcing a nuclear use doctrine. Pakistan in this context will maintain the status quo unless dramatic changes occur in its nuclear conditions.

Of course, it is daunting for Pakistan to build a definitive nuclear use doctrine given the fluidity of strategic conditions and India's changing strategic postures. Many ponderable and imponderable factors will continue to influence Pakistan's nuclear use doctrine and its evolution. It will be a continuously evolving process.

1 For a discussion on the origins of military doctrine, see Scott D. Sagan, 'The Origins of Military Doctrine and Command and Control System,' in Peter R. Lavoy, Scott D. Sagan and James J. Wirtz, eds., *Planning the Unthinkable: How New Powers Will Use Nuclear, Biological, and Chemical Weapons* (Ithaca, NY: Cornell University Press, 2000), pp. 16–46; Barry R. Posen, *The Sources of Military Doctrine: France, Britain, and Germany Between the World Wars* (Ithaca, NY: Cornell University Press, 1984); Peter D. Feaver and Christopher Gelpi, *Choosing Your Battles: American Civil–Military Relations and the Use of Force* (Princeton, NJ: Princeton University Press, 2004); Ka Po Ng, *Interpreting China's Military Power: Doctrine Makes Readiness* (London: Routledge 2004).

2 According to Cohen, 'Nuclear opacity is a situation in which a state's nuclear capability has not been acknowledged, but is recognised in a way that influences other nations' perceptions and actions.' See, Avner Cohen, *Israel and the Bomb* (New York: Columbia University Press, 1998), p. 2.

3 International Institute for Strategic Studies (IISS), *Nuclear Black Markets: Pakistan, A.Q. Khan and the Rise of Proliferation Networks: A Net Assessment* (London: IISS, 2007), p. 33.

4 Devin T. Hagerty, 'Nuclear Deterrence in South Asia: The 1990 Indo–Pakistani Crisis,' *International Security*, vol. 20, no. 3, Winter 1995/96, p. 102.

5 'Statement by Nawaz Sharif, 28 May [1998],' printed in *Disarmament Diplomacy*, issue no. 26, May 1998.

6 'India asks Pakistan to accept "no-first use pact,"' *The Independent* (Dhaka), 9 July 1998.

7 Theorists make such an argument. See, Jordon Seng, 'Less is More: Command and Control Advantages of Minor Nuclear States,' *Security Studies*, vol. 6, no. 4, Summer 1997, pp. 50–92.

8 Major General (Retd.) Mahmud Ali Durrani, 'Pakistan's Strategic Thinking and the Role of Nuclear Weapons,' Cooperative Monitoring Centre Occasional Paper 37, SAND 2004 3375P, Sandia National Laboratories, July 2004, p. 24. Available at <http://www.cmc.sandia.gov/cmc-papers/sand2004-3375p.pdf>.

9 A Pakistani analyst posits: 'the no first use offer cannot be acceptable (to Pakistan) unless the prospects of war are reduced because of an enormous disparity between the conventional capabilities of two countries.' See, Afzal Mahmood, 'Need for a Nuclear Doctrine,' *Dawn*, 19 September 1998.

10 For Pakistani views on India's NFU policy, see Rifaat Hussain, 'Thinking about Nuclear Use and "No First Use,"' *National Development and Security* (Rawalpindi), vol. X, no. 2, 2001–02, pp. 1–13; 'Assessing Pakistan's Nuclear First-Use Option,' *Defence Journal*, vol. 8, no. 2 (September 2004), pp. 12–15.

11 Tariq Mahmud Ashraf, *Aerospace Power: The Emerging Strategic Dimension* (Peshawar: PAF Book Club, 2003), p. 148.

12 Paolo Cotta-Ramusino and Maurizio Martellini, *Nuclear Safety, Nuclear Stability and Nuclear Strategy in Pakistan*, Landau Network, Como, January 2002. Available at <http://www.mi.infn.it/~landnet/Doc/pakistan.pdf>.

13 IISS, *Nuclear Black Markets: Pakistan, A.Q. Khan and the Rise of Proliferation Networks*, p. 37.

14 Feroz Hassan Khan, 'Comparative Strategic Culture: The Case of Pakistan,' *Strategic Insights*, vol. 4, no. 10, October 2005.

15 'We Will "Unleash Storm" If Attacked: Vows Musharraf,' *Daily Times*, 30 May 2002.

16 Peter R. Lavoy, 'Pakistan's Nuclear Posture: Security and Survivability,' Nonproliferation Policy Education Centre, 21 January 2007, p. 3. Available at <http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=20070121-Lavoy-PakistanNuclearPosture&PDFFolder=Essays>.

17 Shirin M. Mazari, 'Kashmir: Looking for Viable Options,' *Defence Journal*, vol. 3, no. 2, February–March 1999.

- 18 'Pak Defence Strong Says Army Chief,' *The Independent*, 19 April 1999.
- 19 IISS, *Nuclear Black Markets: Pakistan, A.Q. Khan and the Rise of Proliferation Networks*, p. 38.
- 20 Stephen P. Cohen, *The Pakistan Army*, 1998 edition (Karachi: Oxford University Press, 1998), pp. 177–8.
- 21 Durrani, 'Pakistan's Strategic Thinking and the Role of Nuclear Weapons,' p. 26.
- 22 'Nuclear Programme for Defense Purposes Only: Pakistan Renews Talks Offer to India,' *The Muslim*, 4 June 1998. President Musharraf has time and again asserted that Pakistan would use nuclear weapons only in this way. See, Harvey Stockwin, 'N-Bombs to be Used as Last Resort,' *The Times of India*, 20 January 2000; Rory McCarthy and John Hooper, 'Musharraf Ready to Use Nuclear Arms,' *The Guardian*, 6 April 2002.
- 23 Farah Zhara, 'Pakistan's Elusive Search for Nuclear Parity with India,' in *India's Nuclear Security*, eds., Raju G. C. Thomas and Amit Gupta (London: Lynne Rienner, 2000), p. 161.
- 24 'Command and Control of Nuclear Weapons,' *The News*, 28 February 2000.
- 25 This point is discussed in General (Retd.) K. Sunderji, *Blind Men of Hindoostan: Indo-Pak Nuclear War* (New Delhi: UBS Publishers' Distributors, 1993).
- 26 Rasul B. Rais, 'Conceptualizing Nuclear Deterrence: Pakistan's Posture,' *India Review*, vol. 4, no. 2, April 2005, p. 157.
- 27 George Perkovich, 'Pakistan's Nuclear Dilemma,' Carnegie Proliferation Roundtable, 26 September 2001. Available at: [www.ceip.org/npp](http://www.ceip.org/npp).
- 28 'Ex-Army Head: Pakistan Had Nuclear Arsenal in 1989,' *New York Times*, 26 June 2001.
- 29 Ayesha Siddiqi-Aga, 'War-gaming in a nuclear environment,' *The Friday Times*, 26 July–1 August 2002.
- 30 David Albright, 'Securing Pakistan's Nuclear Weapons Complex,' Institute for Science and International Security, 2001. Available at <http://www.isis.-online.org>.
- 31 Theoretically there are two types of targeting policy: counter-force and counter value. The former makes the adversary's military assets the target of its nuclear strike, while the latter targets big cities, population centres and industries.
- 32 IISS, *Nuclear Black Markets*, p. 38.
- 33 Farah Zhara, 'Pakistan's Road to a Minimum Nuclear Deterrent,' *Arms Control Today*, vol. 29, no. 5, July/August 1999.
- 34 Pravin Sawhney, 'How Inevitable is an Asian Missile Race?,' *Jane's Intelligence Review*, January 2000, p. 30.
- 35 Stephen P. Cohen, *The Idea of Pakistan* (Washington, DC: The Brookings Institution, 2004), p. 119.
- 36 Shirin M. Mazari, 'India's Nuclear Doctrine in Perspective and Pakistan's Options,' *Defence Journal*, October 1999.
- 37 Naeem Ahmad Salik, 'Minimum Deterrence and India-Pakistan Nuclear Dialogue: Case Study on Pakistan,' Landau Network-Centro Volta. March 2006, p. 14. Available at [http://www.centrovolta.it/landau/South%20Asia%20Security%20Program\\_file/Documenti/Case%20Studies/Salik%20-%20S.A.%20Case%20Study%202006.pdf](http://www.centrovolta.it/landau/South%20Asia%20Security%20Program_file/Documenti/Case%20Studies/Salik%20-%20S.A.%20Case%20Study%202006.pdf).
- 38 A former Pakistani army officer notes that 'partial pre-delegation' of nuclear launch authority 'would be an operational necessity because dispersed nuclear forces as well as central command authority (National Command Authority) are vulnerable.' See, Feroz Hassan Khan, 'Nuclear command-and-Control in South Asia during Peace, Crisis and War,' *Contemporary South Asia*, vol. 14, no. 2, June 2005, pp. 168–9. It is not only the view of Pakistani analysts that pre-delegation of authority to field commanders for nuclear use is a very likely option for Islamabad to take, but



Western analysts equally reach the same conclusion. For example, Hoyt notes that Pakistan is likely to lean heavily towards the 'always' side of the always/never divide, and is probably likely to include both devolution and pre-delegation of nuclear use to the field commanders. See, T.D. Hoyt, 'Pakistani Nuclear Doctrine and the Dangers of Strategic Myopia,' *Asian Survey*, vol. XLI, no. 6, November–December 2001, p. 966.

39 Feroz H. Khan, 'Nuclear Command-and-Control in South Asia during Peace, Crisis and War,' p. 168.

40 Eric Ernett, 'Nuclear Stability and Arms Sales to India: Implications for US Policy,' *Arms Control Today*, vol. 27, no. 5, August 1997, pp. 7–11.

41 Durrani, 'Pakistan's Strategic Thinking and the Role of Nuclear Weapons,' p. 32.

42 As of late (November) 2007, General Pervez Musharraf occupies both the presidency and the army chief position. He is likely to relinquish the post of army chief in the near future, and will continue as civilian president.

43 Zafar Iqbal Cheema, 'Pakistan's Nuclear Use Doctrine and Command and Control,' in Peter R. Lavoy, Scott D. Sagan, and James J. Wirtz, eds., *Planning the Unthinkable: How New Powers Will Use Nuclear, Biological and Chemical Weapons* (Ithaca, NY: Cornell University Press, 2000), p. 174.

44 M.V. Ramana, R. Rajaraman, and Z. Mian, 'Nuclear Early Warning in South Asia: Problems and Issues,' *Economic and Political Weekly* (Mumbai), 17 January 2004.

45 Following the terrorist attacks on the USA on 11 September 2001, serious concerns were expressed in the West about the safety and security of Pakistan's nuclear weapons. However, these concerns are mostly alarmist and misplaced. On this, see Gaurav Kampani, 'Safety Concerns About the Command and Control of Pakistan's Strategic Forces, Fissile Material, and Nuclear Installations,' Centre for Nonproliferation Studies, 28 September 2001. Available at <http://cns.miis.edu/research/wtc01/spna.htm>.

46 Quinlan examines the Indo–Pakistani nuclear deterrence in the post-tests era and finds, contrary to popular perception, considerable tenacity in the South Asian nuclear deterrence. See, Michael Quinlan, 'India–Pakistan Deterrence Revisited,' *Survival*, vol. 47, no. 3, Autumn 2005, pp. 103–16.

47 According to Shaun Gregory, 'the history of conflicts between India and Pakistan shows a high degree of intra-war escalation control, a repeated propensity to bilateral political and military dialogue to contain conflict, and an aversion to systematically attacking civilian targets ....' See, Shaun Gregory, 'A Formidable Challenge: Nuclear Command and Control in South Asia', *Disarmament Diplomacy*, issue 54, February 2001.

48 For example, according to Basrur, although India and Pakistan evaded serious nuclear engagement during the Kargil conflict and the 2001–02 military stand-off, a 'future confrontation could well lead to a far more painful denouement.' See, Rajesh M. Basrur, 'Nuclear Command-and-Control and Strategic Politics in South Asia,' *Contemporary South Asia*, vol. 14, no. 2, June 2005, p. 159.

**PART III**  
**Nuclear Politics: Extra-regional Linkages and  
Consequences**

## **Chapter 6**

# **The China Factor in South Asian Nuclear Politics**

Binoda Kumar Mishra

Once Henry Kissinger asked Deng Xiaoping what he thought of the consequences of the French Revolution. Deng replied: 'It is too early to say.'<sup>1</sup> The reply implied one of the critical aspects of Chinese thinking – the proclivity to take a long-term view of an issue. China, moreover, is one of the most secretive countries of the world. Therefore, an understanding and evaluation of China's role in international affairs must be undertaken from such a standpoint. Like geography, the nuclear politics of South Asia is also India-centric. The nuclear situation in the region is shaped by India's perceptions, actions and reactions. Nonetheless, China has been an important factor in the nuclear evolution of India and thus South Asia at three levels: perception, action and reaction. It is in this context that this chapter seeks to look at the evolution of the nuclear situation in the region and the China factor in this nuclear complex.

This chapter questions the popular perception of the China factor that has not only dominated the Indian nuclear policy discourse but also to a great extent academic enquiry into the issue. It attempts to locate India's desire to have nuclear weapons and how the Sino-fixation has added a complex dimension to it. To do this, the chapter examines historical narratives to demonstrate the 'sequence and events' and locate the China factor to find out whether it is central or was projected to be central to India's decision to acquire nuclear weapons.

India's nuclear policy has been the most enigmatic of its national policies ever since it emerged as an independent state in 1947. Caution characterises India's nuclear behaviour. The process of its acquisition of nuclear weapons has attracted tremendous global attention. Since its independence India has pursued a nuclear weapons programme in which its policy elites were able to maintain a fine balance between strategic secrecy

and democratic transparency. New Delhi gatecrashed the nuclear club in such a way that the Nuclear Five were subsequently unable to prevent the acceptance of India's nuclear status. Politically, India is now counted and heard, and it figures in major global strategic issues. Its nuclear status has also created economic opportunities. However, one cannot be certain how far this will lead to national development and security, particularly given that the region has already produced a complex nuclear security dilemma. Although India and Pakistan have ended up with more weapons (nuclear weapons), their military capabilities have greatly reduced.<sup>2</sup> The emergence of the South Asian nuclear complex needs a radical reexamination, in particular a look at how it evolved and how China was referred to as a constant factor in South Asia's nuclear politics.

## **The Origin of India's Nuclear Programme and the China Factor**

It is difficult to analyse India's nuclear programme within any particular theoretical framework. Of the three models discussed by Scott D. Sagan, namely the security model, the domestic politics model and the norms model, no single model can correctly explain India's nuclear weapons programme.<sup>3</sup> This explains why the programme took so long to break the nuclear weapons threshold. Since independence, India has maintained that world peace should be the objective of each nation's foreign policy and all of India's policies were directed towards that ultimate objective. But it is no secret that India pursued a nuclear programme that was not entirely peaceful in purpose.

It must be kept in mind that when India started her nuclear programme, China was yet to go nuclear. The reason for mentioning China so early in the discussion is to underline the fact that India's nuclear programme, at the inception, was not linked to China's nuclear programme as we are made to believe. Its progress in developing nuclear technology was slow and without any expressed objective. If we observe the international environment of that time, we get two different trends: the Cold War rivalry dividing the world, and a coordinated effort by major powers to maintain their preponderant position which they had achieved through the possession of nuclear weapons.

India, on the other hand, represented the sentiment of those who demanded comprehensive nuclear disarmament. It is important to note that though India argued and worked for comprehensive nuclear disarmament, at the same time she was apprehensive about whether her efforts would yield any positive results and convince the nuclear powers to give up their nuclear weapons. Thus, in the name of 'scientific temper,' Pandit Nehru initiated the nuclear programme. It was Homi J. Bhabha who convinced Nehru that nuclear energy was futuristic and India had certain advantages in harnessing this source of energy. According to Bhabha, India had a pool of good scientists and a large reserve of thorium, a potential source of fuel to be used in India's nuclear plants. He even argued that India could gain from exporting nuclear raw materials.<sup>4</sup> This appeared convincing to Nehru, who was very interested in the quick and sustainable scientific and technological development of the country. Thus began the slow but certain nuclear march towards an undefined future.

Interpretations differ about Nehru's preferences regarding the military future of India. But Nehru certainly was excited about the prospects of nuclear technology, in terms of both civilian and military considerations, which he thought would facilitate India's eventual leadership position in the region and beyond. In a speech in 1946 he, for the first time, talked about the utility of nuclear technology and gave hints of India's intention to keep the weapons option open. He said:

As long as the world is constituted as it is, every country will have to devise and use scientific devices for its protection. I have no doubt India will develop her scientific researches and I hope Indian scientists will use the atomic force for constructive purposes. But if India is threatened she will inevitably try to defend herself by all means at her disposal. I hope India in common with other countries will prevent the use of the atomic bomb.<sup>5</sup>

Nehru was clear in his articulation that the prevention of the use of nuclear weapons was not a unilateral obligation of India if other nations did not wish to do the same. In the 34th session of the Indian Science Congress, on 3 January 1947, Nehru in contextualising the Hiroshima bombing said that nuclear technology had a dual face and both faces were here to coexist side by side.<sup>6</sup> He further stressed the importance of nuclear technology in the 'building of a free and self-reliant India.'<sup>7</sup> This was the earliest indication of India's approach towards nuclear technology. Nehru's view became more apparent in a letter to his Defence Minister Baldev Singh in 1948:

The future belongs to those who produce atomic energy. That is going to be the chief national power for the future. Of course, defence is intimately concerned with this. Even the political consequences are worthwhile. The probable use of atomic energy in warfare is likely to revolutionise all our concepts of war and defence. For the moment, we may leave it out of consideration except that it makes it absolutely essential for us to develop the method of using atomic energy for both civilian and military purpose. This means scientific research on a big scale.<sup>8</sup>

On 12 August 1956, in a letter to the chief ministers of the provinces, Nehru wrote that ‘We are living in the atomic age and if we do not recognise the obvious facts of this age then we are bound to fail as a nation....’<sup>9</sup> Nehru’s preference for nuclear weapons is clearly evident from his testing Bhabha’s ability to develop the bomb, during a meeting with Major General (Ret.) Kenneth D. Nichols, who was an American engineer involved in the Manhattan Project and who visited India in 1960 to pursue the Indian leadership to accept American light-water reactors. Nichols gave an account of Nehru’s conversation with Bhabha, which took place in his presence. Nichols noted:

Nehru turned to Bhabha and asked, ‘Can you develop an atomic bomb?’ Bhabha assured him that he could and in reply to Nehru’s next question about time, he estimated that he would need about a year to do it. I was really astounded to be hearing these questions from a person I thought to be one of the world’s most peace loving leaders. He then asked me if I agreed with Bhabha, and I replied that I knew of no reason why he could not do it. He had men who were as qualified or more qualified than our young scientists were fifteen years earlier. He concluded by saying to Bhabha, ‘Well don’t do it until I tell you to.’<sup>10</sup>

Thus, it is evident that Nehru not only ideologically supported the weaponisation idea, but also put effort into operationalising a dual-faced nuclear programme. The Indian Atomic Energy Commission was created in 1948 to regulate the programme and maintain secrecy.

The first external push for seriously considering nuclear autonomy through the refusal in 1953 of the US to carry out nuclear trade with India or provide her with nuclear aid on the pretext that India was selling thorium nitrate, a potential nuclear fuel, to China, which was prohibited under US domestic laws.<sup>11</sup> Though the problem was solved mutually, it signalled that India could not rely on foreign support to carry out independent nuclear activities. Added to this was the courtship that developed in 1954 between the US and Pakistan, which ensured a steady supply of military aid to the latter. The increasing proximity between the US and Pakistan created a kind of security dilemma that assisted the cause of India’s nuclear weapons

programme, although it was not a sufficient cause. However, Nehru used this security threat as a pretext for advancing his nuclear intentions. But there was a necessity to camouflage the programme from international opposition that was slowly gaining ground to prevent horizontal proliferation of nuclear weapons. To get around this, Nehru adopted a most effective strategy: campaigning for comprehensive nuclear disarmament. Nehru invited Bertrand Russell to organise, along with Homi Bhabha, the first meeting of scientists from both sides of the then Iron Curtain to hold discussions and persuade the international community to renounce nuclear weapons. One should not doubt Nehru's commitment to global nuclear disarmament. But Nehru was aware of the reality that given the advantages a nation gets by possessing nuclear weapons, it was not feasible in the near future that those nations who were already in possession of the weapon would renounce it. The cold US response to the Pugwash suggestions (the location of the conference was eventually shifted to Pugwash in Canada) convinced Nehru that the international efforts towards nuclear disarmament were actually part of a game to deny the developing countries access to the revolutionising technology. Nehru played the same game in denying the developed countries a chance to influence the Indian nuclear programme. Such posturing went well with India's international image as a nation of 'non-violent *Satyagrahis*.' This posturing, in subsequent years, proved to be the most powerful impediment to India fulfilling its desire to possess the atom bomb and show it to the world. Nehru's immediate successor, Lal Bahadur Shastri, could not decide in which way the Indian nuclear programme was to be directed, as he lacked Nehru's understanding of the programme and did not have the ability to deal effectively with international opinion. Shastri failed to notice that the Nehru-Bhabha combination had started making it clear that India was not opposed to the idea of nuclear weapons. Bhabha subtly declared at the 27 January-1 February 1962 Pugwash Conference in Udaipur, India, that given the threat China poses to her smaller neighbours, it was expedient for India to go the nuclear weapons way.<sup>12</sup>

Before the dawn of the 1960s, there was nothing nuclear in Chinese behaviour clearly directed against India that could constitute a justification for the latter to take a nuclear weapons option. Therefore, one can only explain that India's reference to China as the pretext for her own nuclear programme was nothing but a 'perceptual security dilemma.'<sup>13</sup> Indian

policymakers were indeed creating a Chinese fear psychosis, which is in line with Robert Jarvis's assertion that statesmen, faced with a security dilemma, perceive that offensive capabilities provide a greater degree of security than their defensive counterparts.<sup>14</sup> China, after her communist revolution, emerged as a strong power, but her military strength and mentality were not tested in the Sino–Indian context until the 1962 Sino–Indian war. Before that, any assessment of Chinese military power was more a matter of conjecture than fact. Thus, India made good use of this uncertainty to advance her nuclear ambitions. Given Nehru's preferences towards China in the initial years of Indian independence, one cannot argue that India pursued a nuclear programme in response to a perceived Chinese threat. The initial objective of Nehru was to place India in the league of big powers, to which, he thought, his country belonged. The China threat was a construction based on other actions taken by China. Chinese aggressive posturing towards Taiwan and Tibet were indications enough that China's intentions towards her neighbours might not remain benign in the future. By 1962, even Nehru had started articulating the China threat in clearer terms. In a private letter written in 1962, prior to the Sino–Indian war, Nehru wrote:

China, I think is going to be our foe or adversary for a considerable time to come ... we should ... concentrate on strengthening our defence position. I think there is not much likelihood of China attacking us militarily. ... Even so ... we have to strengthen ourselves to meet the Chinese menace.<sup>15</sup>

Therefore, India thought it expedient to have an offensive capability to match up to any eventuality from the Chinese side.

The best opportunity that came in India's way for going down the nuclear path was the Chinese nuclear test of 16 October 1964. During the period from 1948 to 1964 there remained a silence over the progress of the programme. But the 1964 Chinese test gave New Delhi the pretext to break it. Not long before, India fought a war with China, in which the latter humiliatingly defeated the former. In the meantime, Nehru died in 1964 and the new Indian leadership was grappling with the duality of the country's nuclear programme. One can safely conclude that had Nehru been alive, he would have claimed that the Chinese nuclear test made it 'absolutely necessary' for India to go nuclear. But the irony is that Nehru's writings and international posturing had given the impression that India had a distaste for



nuclear weapons. He personally stood for comprehensive global nuclear disarmament, movingly wrote and spoke against the use of nuclear technology for weapons purposes and passionately urged the nuclear haves to rescue the whole of humanity from the fear of nuclear holocaust by renouncing these frightful engines of destruction.<sup>16</sup> There are some who argue that Nehru was (now we know that he was not) unsure about the utility of the weapon for India's purposes and thus while arguing for nuclear disarmament he had agreed to allow research to proceed in the direction of 'contingent weaponisation.' However, after Nehru's death and the Chinese test, a renewed and vigorous nuclear debate started in Indian policymaking and academic circles.

The Chinese tests triggered a vigorous nuclear debate in India. Three distinct positions emerged. The first was that of the abolitionists, who rejected outright the idea of India pursuing the weapons option. This group included prominent bureaucrats such as V.K. Krishna Menon, and politicians such as J.P. Narayan and Morarji Desai. The rationale of their argument was more political and ideological than technical. According to their view, India must show respect to her great tradition of non-violence and commit herself to global nuclear disarmament. The second group took the opposite view. Led by Homi Bhabha, this group argued that given the fact that nuclear weapons are the great equaliser, India must lay her hands on this weapon in order to deter the massive Chinese conventional and unknown nuclear stockpile. It was Bhabha's formulation that India could achieve absolute deterrence vis-à-vis China with the help of nuclear weapons.<sup>17</sup> The third position was held by security analysts and military personnel, who argued in favour of India going nuclear but found no urgency in doing so and wanted India to cross the threshold only in the event of any new strategic/political threats such as conflict with China or any other unspecified crisis.<sup>18</sup> Without going into the relative merits and demerits of the three positions, it can be concluded that the Indian nuclear programme followed the third position, i.e. 'contingent weaponisation.' But the progress from ambivalence to that of weaponisation to the degree of minimum credible nuclear deterrence was not the handiwork of any single leadership or group. It evolved after a lot of searching for an adequate explanation for the development of a weapon that India apparently stood firmly in favour of eliminating from the Earth.

The debate among the three positions remained inconclusive until the 1965 war with Pakistan. The war with Pakistan and Chinese aggressive posturing<sup>19</sup> finally gave the hawks in the Indian establishment the opportunity to push the case of weaponisation more forcefully. Suffice it to say here that the behaviour of China during this time gave a strong enough impression that India had to achieve self-reliance in defence matters, including nuclear weapons. Just as the war with Pakistan was coming to a close, nearly 100 members of the Indian parliament, across party lines, submitted a letter urging the Prime Minister to decide immediately to develop nuclear weapons.<sup>20</sup> However, Shastri, the then Prime Minister, chose not to exercise the weapons option, but pledged commitment to nuclear disarmament. But it is important to note here that it was Shastri who had given the go-ahead to the Subterranean Nuclear Explosion Project (SNEP), which subsequently contributed to the testing of the fission device under the name of Peaceful Nuclear Explosion (PNE) in 1974. The exact intention of Shastri behind authorising the SNEP could not be known, as he had passed away shortly after that. His death was closely followed by the death of Homi Bhabha, creating a vacuum in the nuclear policy establishment that could have ensured the continuation of the nuclear programme. The policy of ambiguity continued for a considerable period before India could finally test her first device in 1974, though from various accounts we now know that India had all the technical capabilities to test and acquire a weapon by 1966, despite the fact that the option was not exercised until after eight years.

## **The China Factor Through Pakistan**

It is now clearly established that India's programme, at its outset, was related neither to the Chinese nuclear programme nor to that of any other country, friend or foe. But the regional impact of India's nuclear posture was multi-faceted. George Schultz once said, 'proliferation begets proliferation.'<sup>21</sup> Every time a state proliferates nuclear weapons against her real or potential rival, it will create a similar dilemma for other states in the system, forcing them to proliferate. If India created the perceptual security dilemma to induce a favourable international opinion should she decide to follow the nuclear weapons path, China for her part started playing a role

that clearly lent legitimacy to such Indian fears. China played her role during this period through helping Pakistan, which was desperate to procure nuclear weapons. Any nationalist Indian would call Pakistan's nuclear programme an aggressive posture vis-à-vis India, but an objective analysis of the Pakistani nuclear project would certainly conclude that Pakistan was well within its rights to pursue a nuclear programme in response to the Indian nuclear programme. The logic for Pakistan was simple and remains so. Given the history of war and constant conflict with India, Pakistan needed an insurance against Indian nuclear weapons. In the words of a Pakistani general, '[s]ome protection against extinction is the inalienable right of an individual or a nation. Oxygen is basic to life and one does not debate its desirability ... nuclear deterrence has assumed that life-saving property for Pakistan.'<sup>22</sup> This is 'Hobbesian fear' – the term Herbert Butterfield coined to describe the security dilemma behind interstate conflict. Despite the fact that, as has been seen, India never intended to do Pakistan any harm unless provoked, Pakistan was justified in suffering from the sensation of nakedness vis-à-vis Indian conventional and nuclear capability. This situation is a typical security dilemma, as Butterfield informs us. Butterfield writes:

It is this peculiar characteristic of the situation that I am describing ... that you yourself may vividly feel the terrible fear that you have of the other party, but you cannot enter into the other man's counter-fear, or even understand why he should be particularly nervous. For you know that you yourself mean no harm, and that you want nothing from him save guarantees for your own safety; and it is never possible for you to realise or remember properly that since he cannot see the inside of your mind, he can never have the same assurance of your intentions that you have.<sup>23</sup>

In a timeline, one can see the evolution of Pakistan's nuclear programme. Pakistan embarked on her nuclear programme in the 1950s for peaceful purposes. The programme showed interest in nuclear weapons only as a reaction to India's nuclear weapons programme. The relationship is evident from the fact that Pakistan expressed her interest in signing the Nuclear Non-Proliferation Treaty (NPT), but on condition that India did so. In the 16th annual session of the United Nations Atomic Energy Conference held in Mexico in September 1972, Pakistan put forward a proposal to denuclearise South Asia.<sup>24</sup> Pakistan repeated the proposal in 1974,<sup>25</sup> but India did not respond. There are scholars who argue that Pakistan's pledge to denuclearise South Asia was a camouflage for her weapons programme. Such an interpretation is more a matter of conjecture than analysis. A better

interpretation of Pakistan's nuclear abolition proposal is, firstly, that Pakistan knew full well that she was in a position of weakness in relation to India and thus wanted to prevent India from possessing nuclear weapons; had India accepted the Pakistani proposals, the latter would not have pursued the costly nuclear weapons programme. Secondly, India's nuclear programme created a nuclear circle around herself. India's refusal to sign the NPT and the subsequent conduct of the PNE made Pakistan desperate. From a position of nuclear abolition, Pakistan started pursuing an aggressive nuclear programme only to counter the Indian nuclear and conventional threats. If India was justified in pursuing a nuclear weapons programme against uncertain Chinese nuclear and conventional postures, Pakistan was equally justified in pursuing a protective nuclear cover for herself. In her endeavour to obtain nuclear capability, Pakistan looked at the enemy of her enemy, i.e. China.

In an attempt to develop nuclear deterrent capability, Pakistan walked into the strategic sphere of China. From 1965 till 1976 Pakistan kept pleading for Chinese help. Zulfikar Ali Bhutto travelled three times to China between 1971 and 1976 just to obtain Chinese assistance for nuclear weapons technology.<sup>26</sup> China took some time to assess the prospects and consequences of supporting Pakistan. Finally, while it was convinced about Pakistan's loyalties, China agreed to help Pakistan in developing the nuclear programme. The Sino-Pakistan collaboration began in 1976, indicating that the partnership was a reaction to India's 1974 PNE. This provided China with a great opportunity to encircle India with nuclear weapons. Although China became a signatory to the NPT in the early 1990s, it still violated the provisions of the treaty by providing clandestine assistance.<sup>27</sup> Chinese help in terms of technology was not going to be sufficient for developing the weapons. The project required huge amounts of money, which Pakistan was in no position to afford. It was at this point that Pakistan used a certain 'civilisational logic' to raise funds – by mobilising the support of the Islamic world; indeed, the term 'Islamic bomb' appealed to those in the Arab world who poured money into the Pakistani nuclear programme. China found this to be an easy way to increase her sphere of influence in the whole of Asia. Through supporting the Pakistani nuclear weapons programme, China befriended the Islamic world.

## **The Second Nuclear Age in South Asia**

The second smile of the Buddha during May 1998 started the second nuclear age in South Asia. With both India and Pakistan crossing the nuclear threshold in a time span of 15 to 20 days, the reality of horizontal proliferation became real and clear. India's crossover to the weapons side without any regard to the non-proliferation efforts and Pakistan's almost immediate response suggest that both were prepared with nuclear weapons capabilities long before they actually demonstrated their capabilities. There have been various explanations as to why India finally went overtly nuclear in May 1998. Notwithstanding the domestic political factors and international nuclear political environment that pinpointed the timing of the actual test, the decision to test was neither just domestic politics nor purely related to the international non-proliferation attempts that were gaining strength at that time. It is a fact that there was no political consensus over testing the nuclear device in the period between 1974 and 1995. The actual decision was taken in 1995 and we know of few attempts from the Indian side to test nuclear weapons from 1995 till the eventual test in 1998.

Three Chinese moves had a significant influence on New Delhi's decision to test. First, in 1993, the authoritative Chinese Central Military Commission chaired by Deng Xiaoping and Jiang Zemin published a report titled 'Can the Chinese Army Win the Next War?.' The report summed up the threats perceived by the Chinese leadership in the coming years. It characterised India as the 'longest potential threat,' the US as the 'open adversary' and 'the number one military power in the world,' Japan as 'a resurgent powerful adversary,' Vietnam as an 'unpredictable super-killer,' and Russia as a 'still powerful threatening force.'<sup>28</sup> Second, and the most immediate reason for the report was the slight but hugely significant change in the nuclear doctrine of China that took place in the year 1995. China made its No-First Use (NFU) conditional in April 1995. China changed the universal character of its NFU doctrine and made it conditional, in being applicable only to non-nuclear weapon states that were 'parties to the NPT.'<sup>29</sup> This effectively removed from India the assurance that it would not be targeted by Chinese nuclear weapons, or in other words, it made it look as if India were the prime target of Chinese nuclear weapons. Third, in 1994 China transferred 5,000 ring magnets, a major component in nuclear weapons production, to Pakistan. These reinforced Indian anxiety over

China's posture. It is very much public knowledge that India attempted to test the nuclear device during mid-December 1995. It may have been US pressure or some other factor that forced India to abort the test at the last moment. Thus, searching through organisational theories to explain India's decision to test the nuclear device would lead us to misplaced conclusions, as the prime factor – the Chinese role – would be swept under the carpet. Finally, however, in May 1998 India succeeded in conducting the tests she needed to instil confidence in her weapons vis-à-vis any possible Chinese nuclear blackmail. The then Indian Defence Minister, George Fernandes, projected China as 'potential threat number one,'<sup>30</sup> and Prime Minister Atal Bihari Vajpayee wrote a letter to the US president explaining the worsening security situation due to Chinese military activities and doctrinal changes.<sup>31</sup> Relating India's nuclear tests and the emerging nuclear situation in South Asia to Chinese actions, the Heritage Foundation in a report argued that 'China's role in helping Pakistan to acquire nuclear weapons has raised serious concerns about China's part in fostering instability in South Asia.' It goes on to specifically state that 'China's deep involvement with Pakistan's nuclear program contributed to the new Indian government's decision to test nuclear weapons.'<sup>32</sup>

The first and foremost effect of the formal nuclearisation of South Asia has been that security is no longer ensured by the defensive function of war.<sup>33</sup> Now, security is entirely dependent on the deterrence posturing of the regional powers – which include China, the non-regional power. Waltz questions the fears expressed by some scholars that more nuclear weapons states would increase the chances of nuclear war. His argument is based on the logic of the utility of wars for states. He concludes that possessing nuclear weapons makes fulfilment of the objective of war prohibitively costly. Thus, states possessing nuclear weapons would prefer de-escalation to the escalation of war to the level of the use of nuclear weapons.<sup>34</sup> He further dismisses all fears and suggests that nuclear weapons neither generate war nor do they destabilise a region. Drawing examples from the evolution of the major nuclear powers, he is particularly optimistic that smaller nuclear weapons states like India and Pakistan would find it necessary to maintain deterrence vis-à-vis each other and would not dare to undertake preventive or pre-emptive strikes out of the fear of the consequences in case the game is not played to perfection.<sup>35</sup> His optimism rests on the 'mutual distrust' that characterises his portrayal of the

international system. On the other hand, Scott D. Sagan has identified four requirements for a stable deterrence: prevention of preventive war during periods of transition when one side has a temporary advantage; the development of survivable second-strike forces; the avoidance of accidental nuclear war; and the ability to keep nuclear weapons out of the reach of terrorists.<sup>36</sup> There are good reasons to endorse his argument that deterrence might fail at any time in a region like South Asia, as India and Pakistan cannot ensure (or may not choose to ensure) these four requirements.

Nuclear stability in South Asia is said to be maintained by dyadic behaviour patterns that India and Pakistan are expected to maintain. But the dyadic patterns are irrelevant in explaining the security situation in South Asia, since it is more complex – it involves China, the non-dyadic party, and there is a remote but realistic possibility of non-state actors in the region laying their hands on these weapons of mass destruction.<sup>37</sup> Currently, India finds herself in such a volatile situation that her security is guaranteed only if deterrence works and never fails in an India–China–Pakistan triangular face-off. In a hypothetical analysis of the possibilities, Kanti Bajpai presents an alarming picture. He envisages three principal dangers to the region: a three-way arms race; crisis instability; and accidental war.<sup>38</sup> Firstly, an arms race can occur in a triangular fashion in the absence of transparency and mutual distrustful perception leading to limitless piles of warheads possessed by each of the three sides, on the rationale that each may view the other's nuclear weapons to be in excess of his own.<sup>39</sup> Secondly, there is a real possibility of conventional conflicts breaking out between India and either of the other two parties and escalating into a nuclear confrontation, and of the third party taking an opportunistic advantage of the situation.<sup>40</sup> In this case the most vulnerable is India, as the possibility of a China–Pakistan conflict and its escalation is remote. Finally, accidental nuclear use can occur through human as well as mechanical failures.<sup>41</sup> Recently, Shaun Gregory's revelation that Pakistan's nuclear weapons were attacked three times by terrorists between 1 November 2007 and 20 August 2009 lends sufficient credence to the fear that South Asia may experience nuclear terrorism at any time.<sup>42</sup>

## **China in Contemporary South Asian Nuclear Politics**

Nuclear politics in South Asia cannot be analysed without taking into account the overall emerging geopolitical environment. If the arrival of nuclear weapons and the rise of terrorism have brought the international focus to South Asia, something else of importance is happening in Asia which the whole world is watching with both eagerness and anxiety. The two most populated countries of the world, India and China, have started their march towards the core of the international economic system and seem to be marching at a fair speed. Their combined march can be compared to the rise of Europe during the nineteenth century or the burst of economic growth in the US in the twentieth century.<sup>43</sup> There are unmistakable indications that the current century is going to be shaped largely by the actions of these two Asian giants. Some see the rise of India and China as a single phenomenon, ‘the rise of Chindia,’ and some are interested in the implications of the rise of these two powers.<sup>44</sup> The fact that both India and China are growing at a sustained rate, despite fluctuations in the global economy, is the primary cause of anxiety for many who find it difficult to comprehend that two drastically different systems are performing similarly and spectacularly in the global economic sphere. The anxiety is due firstly to the phenomenon being unprecedented and lacking reference to any other global phenomenon of the past. Those who believe in the ‘end of history’ theory find the rise of China beyond any plausible explanation; and those who see India, through J.K. Galbraith’s eyes, as a ‘functional anarchy,’ find it difficult to account for factors such as sustained growth. The second reason for the increasing anxiety among those who are watching this rise is the uncomfortable bilateral history and the geopolitical issues involving both these countries. The rise of India and China is giving Westerners who fear job loss and many other deprivation the jitters. But India and China, on the other hand, have a tough task, as they house one-third of world’s population and aspire to provide their people with a standard of living comparable to that in the West. This sets them on the path of unavoidable competition, as both are great powers (either aspiring or established) and there is a saying that great powers, even if good neighbours, do compete.<sup>45</sup> India and China are no exception. Though the two countries have crossed many bridges in building an affable relationship, their mutual competition for power and influence is interminable.<sup>46</sup>

The beginning of this century marked a shift in Sino-Indian relations. The old concept of ‘*Hindi-Chini*’ (Indian-Chinese) ‘*bhai bhai*’ (Brothers)



that had led the two states to war has been replaced by the new concept of India–China ‘buy-buy.’ Their mutual trade has exceeded 50 billion US dollars. China is India’s largest trading partner, having replaced the US, and India is China’s tenth largest trading partner. There are now statements that India and China are cooperating in various fields. But on closer analysis, the competitive spirit is clearly visible in all India–China relationships, excepting only at the WTO, where both put up a joint force to retain their right to pollute the environment. Both put up strong resistance to any effort by the international community to put a cap on carbon emissions. Just a few facts make it clear that India and China are actually competing in every field. Though trade volume has increased, in terms of investments there does not seem to be enough progress to suggest the level of trust between the two countries has increased. According to official figures, Chinese investment in India between April 2000 and May 2009 has been only 10.85 million USD, i.e. 0.01 per cent of total FDI into India.<sup>47</sup> The reverse figures are not available but they are also not of any significance. If India restricts Chinese investment under the pretext of protecting sensitive sectors, China prevents Indian investment by protecting sensitive locations or sensitive regions. A clear consciousness of the relative gains vis-à-vis each other is visible in their exclusionary sub-regionalism. In the much-hyped cooperation in the energy sector, the facts speak otherwise. For example, China’s arm-twisting of India to cooperate on Chinese terms in selective oilfields where no other country is interested in going due to the political situations in those regions: China has successfully outbid India in most lucrative oilfields and used that to force India to cooperate on Chinese terms.<sup>48</sup>

The contemporary security strategy of China in relation to its immediate region is to ‘prevent the rise of a peer competitor in Asia or cancel out any advantages that a competitor might have by making alliances with other states.’<sup>49</sup> China remains worried that stronger powers in its neighbourhood would pose a challenge to her control over restive peripheral provinces. There are realistic calculations that China may go out of its way to inflict substantial damage on any country that it feels is a competitor (potential opponent to its self-assumed hegemony) in the region. During the Kargil conflict, one Chinese official reportedly told a Western diplomat that ‘should India and Pakistan destroy each other in a nuclear war, there would be peace along China’s southwestern frontiers for at least three decades and

Beijing needs 20 to 30 years to consolidate its hold over restive Xinjiang and Tibet provinces.’<sup>50</sup> Similar observations of Chinese intentions have been made by Western scholars as well. In her testimony before the US–China Economic and Security Review Commission on 20 May 2009, Lisa Curtis of The Heritage Foundation mentioned that ‘Chinese officials also view a certain degree of India–Pakistan tension, as advancing their own strategic interests as such friction bogs India down in South Asia and interferes with New Delhi’s ability to assert its global ambitions and compete with China at the international level.’<sup>51</sup>

In the last decade of nuclear South Asia, the politics around the weapons has not changed for the better. The Chinese factor has become all the more prominent in instigating proliferation in South Asia and beyond. The pre-1998 collaboration of China with Pakistan has increased in intensity in the post-1998 period. The tests by India and Pakistan have started an arms race in South Asia, with China as a serious stakeholder. The nuclear arms race in South Asia starts and ends with China. Pakistan’s nuclear weapons programme is one-dimensional and it remains related to India’s nuclear programme, but India has the dual objective of maintaining a deterrence not only against Pakistan but also against China.<sup>52</sup> In fact India does not seek a deterrence vis-à-vis Pakistan, it is, rather, an automatic outgrowth of its deterrence vis-à-vis China.

The exact nature of the Chinese threat is hard to measure in any absolute terms; therefore states in an environment of uncertainty may, at times, overreact, but such overreaction is always considered prudent. In this context, the Chinese actions from the mid-1970s have been of considerable anxiety to India. In the mid-1970s China started bringing nuclear weapons and missiles into Tibet and parked them in the caves of Tibet on the pretext that they were a deterrent against Soviet or possible US attacks. But a careful analysis would suggest that these weapons are strategic assets against India only. This can be vindicated by the fact that the number of nuclear warheads in Tibet has not decreased since the end of the Cold War. More particularly, as China has a ‘no strike’ agreement with Russia,<sup>53</sup> and an agreement with the US, not to target US bases in the region,<sup>54</sup> there can be no other rationale for China than to target India.

Since the beginning of the current century, China has embarked upon a massive modernisation programme of its armed forces.<sup>55</sup> According to official figures for the year 2008, China’s defence budget of 418 billion

Yuan (£35 billion) was an increase of 17.8 per cent over 2007.<sup>56</sup> And ‘according to figures from the Jane’s, the military specialists, it has risen by 178 per cent in the past seven years.’<sup>57</sup> China’s budget for 2009 proposes a further increase of 14.9 per cent over its defence expenditure of 2008.<sup>58</sup> There is a nuclear component to Chinese nuclear modernisation. In an interview in *Arms Control Today*, Gareth Evans hinted at the nuclear component of China’s modernisation programme and linked it to a possible arms race in a triangular manner.<sup>59</sup> It is the Chinese modernisation programme that forces India to pursue an effective deterrence programme. Given the gap in conventional military capabilities between China and India, it has become imperative for India to build a credible deterrence with nuclear weapons. These sharp cumulative increases in military expenditure by China cannot be treated separately from the increasing competition between India and China to increase their sphere of influence in the combined region of South and Southeast Asia. In military terms, If India remains worried about this increased Chinese defence expenditure, China remains worried about India developing the intermediate-range supersonic cruise missile *BrahMos* (in collaboration with Russia) and the intermediate-range ballistic missile *Agni*. India alleges that China put up a signal intelligence post on Coco Island in Myanmar and China alleges that India upgraded her monitoring facilities in Mongolia. China has also expressed its anxiety over India’s Blue Water Navy and its power to control the Malacca Strait through which 80 per cent of Chinese imported oil flows. China has also expressed its worries over the possibility of India posing a threat to China in Southeast Asia and East Asia in collaboration with Vietnam and Japan. Further, China is apprehensive that the ‘arc of freedom and prosperity’ – a collaboration between the US, Japan, Australia and India – is actually an ‘Asian NATO’<sup>60</sup> and a strategy to contain China. All these are sufficient grounds for India to believe that China’s military modernisation is also targeted against India.

In addition to the recent increases in defence expenditure, China–Pakistan military cooperation is getting stronger. As part of China’s policy of not allowing India to rise to comparable levels and keeping India boxed into, South Asia only, China has increased its military and nuclear cooperation with its all-weather friend, Pakistan. In the post-1998 period, Pakistan has also grown more anxious about Indian nuclear capability, as India is, genuinely, trying to catch up with China, creating a bigger gap

between herself and Pakistan. Under these circumstances, both China and Pakistan find their strategic and more specifically nuclear interests converge, as is reflected in a statement by Pakistan's President Asif Ali Zardari: 'No relationship between two sovereign states is as unique and durable as that between Pakistan and China.'<sup>61</sup> Since 1998, there have been numerous defence collaborations between China and Pakistan, some of them nuclear. The Cox Committee Report of May 1999 points to Chinese links to the proliferation of nuclear and missile technologies in many countries. The Chinese nexus to global nuclear proliferation is also pointed out by NTI in its report.<sup>62</sup> Relevant to South Asia is the collaboration with Pakistan. As part of China's policy of arming Pakistan, it supplied conventional weapons to Pakistan, including JF-17 aircraft, JF-17 production facilities, F-22P frigates with helicopters, K-8 jet trainers, T-85 tanks, F-7 aircraft, small arms and ammunition.<sup>63</sup> It helped Pakistan build 'a turnkey ballistic-missile manufacturing facility near the city of Rawalpindi and helped Pakistan develop the 750-km-range, solid-fuelled Shaheen-1 ballistic missile capable of carrying nuclear warheads.'<sup>64</sup> In line with the Indo-US nuclear deal, there are steady supplies of nuclear technology and material sent to Pakistan by China. There is desperation on the part of China to help Pakistan emerge as a nuclear-capable state. At this juncture of time, when Pakistan is reeling under the pressure of home-grown terrorism and severe political and financial crisis, China has agreed to construct two new nuclear reactors in Pakistan.<sup>65</sup> Thus, in the regional context, the modernisation programme of China and its assistance to Pakistan can be seen to have two objectives: 1) gaining leverage over India; and 2) building Pakistan as a client state to box India into South Asia.<sup>66</sup>

## **Conclusion**

Although the nuclear political situation was initiated by India with no specific military target in mind, the evolutionary aggressive posture of the other major Asian power, China, provided sufficient reasons for considering the weaponisation option seriously. The breach of trust by China leading to war in 1962 and subsequent nuclear tests in 1964 were defining moments. These events did not result in the immediate nuclearisation of India and thus South Asia, but had an impact on the Indian psyche that kept the

nuclear programme on the path of weaponisation, though at academic and policymaking levels alternatives were openly debated. Thus, India's nuclear weapons programme started following the norms model, as discussed by Sagan, and was supported by security considerations that developed over time through Chinese actions, both nuclear and non-nuclear. Once nuclear weapons arrived in the region, it developed its own dynamics. The traditionally volatile security situation in the region became perilous. The PNE of India was not taken as a PNE by India's arch rival, Pakistan. Against a background of repeated humiliation for its military adventures against India, Pakistan grew desperate to lay its hands on these ultimate weapons. The non-proliferation regime gaining ground at that time made it difficult for Pakistan to obtain nuclear technology and material from the West. There was only one power that had the ability, reason and intention to help Pakistan fulfil its desire. The believable security dilemma created by India in the initial years to lend justification to India's nuclear weapons programme provided China with a logical stake in South Asian nuclear affairs. With China's generous help, Pakistan matched Indian tests in 1998 number to number. Therefore, it can be safely concluded that had China not played the game of balancing the adversary through third parties, South Asia would not have been put on a 'short fuse,'<sup>67</sup> as it is today. The nuclear rivalry between India and China would have continued nonetheless, but would have remained much more stable than it is today. In the post-1998 period, China has invented additional reasons to interfere in India–Pakistan nuclear politics. The simultaneous march of India and China towards the centre of the international economic system is not only creating jitters among Western countries but is also generating increasing mutual anxiety vis-à-vis each other. The self-perception of being a great power makes each believe the other to be the potential enemy. While India is marching slowly towards self-reliance against its perceived adversaries within and outside the region, China is working overtime with intent to realise and further its self-constructed image of *Zhōngguó* (Middle Kingdom) and to limit India's focus and effort in South Asia.

China's active involvement in the global proliferation network and increasing involvement in Pakistan's nuclear and missile proliferation is bound to keep the nuclear politics of the region moving progressively towards weaponisation. It is difficult to find any other reason for China's military/nuclear engagement with Pakistan at this point than the ambition to

keep India bothered. Pakistan is now struggling to hold on to its territorial integrity and the non-state actors are posing real existential threats to the ruling civilian regime and the concept of Pakistani nationhood. At this time, the least that can be expected from a responsible country is to refrain from arming the country beyond necessity. China, on the contrary, is arming Pakistan while remaining dangerously unmindful of the dangerous fallouts. Finally, the prospects of regional non-proliferation leading to nuclear abolition are bleak so long as the links between global nuclear politics and their manifestations in various parts of the world are not recognised and addressed. It is a futile exercise to look at nuclear proliferation as a regional issue. Should the legitimate nuclear powers not commit themselves to and follow a time-bound abolition programme, with horizontal nuclear proliferation elsewhere South Asia would experience spiralling vertical proliferation and maybe the deliberate or inadvertent use of its nuclear weapons.

1 Sashanka S. Banerjee, *India's Security Dilemmas: Pakistan & Bangladesh*, London and New York: Anthem Press, 2006, pp. 224–5.

2 The term 'military capability' is used to refer to a state's ability to perform military missions. See Charles L. Glaser, 'The Security Dilemma Revised,' *World Politics*, vol. 50, October 1997, p. 175.

3 Scott, D. Sagan, 'Why Do States Build Nuclear Weapons?: Three Models in Search of a Bomb,' *International Security*, vol. 21, no. 3, Winter 1996–97, pp. 54–86. Bhumitra Chakma talks about four causes of states going nuclear. They are: security concerns; prestige and status; technological imperatives; and domestic politics. See Bhumitra Chakma, *Strategic Dynamics and Nuclear Weapons Proliferation in South Asia: A Historical Analysis*, Bern, Berlin, Bruxelles, Frankfurt am Main, New York, Oxford, Wien: Peter Lang, 2004, pp. 9–24.

4 Quoted in Stephen P. Cohen, *India: Emerging Power*, New Delhi: Oxford University Press, 2002, p. 158.

5 Dorothy Newman, ed., *Nehru: The First 60 Years*, vol. 2, New York: John Day, 1965, p. 264. Cited in George Perkovich, *India's Nuclear Bomb: The Impact on Global Proliferation*, New Delhi: Oxford University Press, 2000, p. 14.

6 Bharat Karnad, *Nuclear Weapons and Indian Security: The Realist Foundations of Strategy*, New Delhi: Macmillan, 2002, p. 182.

7 Arjun Dev, *Jawaharlal Nehru, Years of Struggle: Selected Readings*, New Delhi: National Book Trust, 1989, pp. 169–70. Cited in Bharat Karnad, *Nuclear Weapons and Indian Security: The Realist Foundations of Strategy*, New Delhi: Macmillan, 2002, p. 182.

8 Quoted in Raj Chengappa, *Weapons of Peace: The Inside Story of India's Quest to be a Nuclear Power*, New Delhi: HarperCollins Publishers, 2000, pp. 71–72.

9 S. Gopal, *Jawaharlal Nehru: A Biography*, vol. II, p. 203. Cited in Bharat Karnad, *Nuclear Weapons and Indian Security: The Realist Foundations of Strategy*, New Delhi: Macmillan, 2002, p. 198.

10 Kenneth D. Nichols, *The Road to Trinity*, New York: Morrow, 1987, p. 352. Cited in Perkovich, *Op. Cit.*, p. 36.

11 Perkovich, *Op. Cit.*, p. 22.

12 Perkovich, *Op. Cit.*, pp. 60–62.

13 Jack Snyder, 'Perceptions of the Security Dilemma in 1914,' in Robert Jarvis, Richard Ned Lebow and Janice Gross Stein (eds.), *Psychology and Deterrence*, Baltimore, MD: Johns Hopkins University Press, 1985, pp. 153–79.

14 Robert Jervis, 'Cooperation under the Security Dilemma,' *World Politics*, vol. 40, no. 1, January 1978, pp. 167–214.

15 Paula Banerjee, 'Borders as Unsettled Markers – The Sino–Indian Border,' *International Security (India)*, vol. 35, no. 2, 1998, pp. 123–4. Cited in Waheguru Pal Singh Sidhu and Jing-dong Yuan, *China and India: Cooperation or Conflict*, New Delhi: India Research Press, 2003, p. 48.

16 Cohen, *Op. Cit.*, p. 161.

17 Homi J. Bhabha, 'The Implications of a Wider Dispersal of Military Power for World Safety and the Problem of Safeguards.' Cited in [Chapter 6](#), n. 5 of Cohen, *Op. Cit.*, p. 341.

18 Cohen, *Op. Cit.*, p. 164.

19 On 17 September 1965, China issued an ultimatum to India to remove construction works in Tibet or face grave consequences. See Perkovich, *Op. Cit.*, p. 109.

20 Perkovich, *Op. Cit.*, p. 111.

21 George Schultz, 'Preventing the Proliferation of Nuclear Weapons,' *Department of State Bulletin*, vol. 84, no. 2093, December 1984, p. 18. Cited by Scott. D. Sagan, 'Why Do States Build Nuclear Weapons?: Three Models in Search of a Bomb,' *International Security*, vol. 21, no. 3, Winter 1996–1997, p. 57.

22 Gen Mirza Aslam Beg, 'Pakistan's Nuclear Imperatives,' *National Development and Security*, vol. 3, no. 10, November 1994, pp. 29–41. Quoted in Manpreet Sethi, *Nuclear Strategy: India's March towards Credible Deterrence*, New Delhi: KW Publishers Pvt. Ltd. in association with The Centre for Air Power Studies, 2009, p. 45.

23 Herbert Butterfield, *History of Human Relations*, London: Collins, 1951, p. 21.

24 *Dawn*, 4 October 1972. Cited by Savita Pande, 'Nuclear Weapon-Free Zone in South Asia,' *Strategic Analysis*, vol. 22, no. 11, February 1999, p. 1681.

25 United Nations General Assembly Draft Resolution, a/C.1/L.682.

26 Julfikar Ali Bhutto terms the China–Pakistan bilateral nuclear agreement 'historic' and his greatest achievement and contribution to the survival of the Pakistani people and the Pakistan nation. See Julfikar Ali Bhutto, *If I am Assassinated*, New Delhi: Vikas, 1979, p. 138.

27 Ashok Kapur, *Pokhran and Beyond: India's Nuclear Behaviour*, New Delhi: Oxford University Press, 2001, p. 194.

28 'Can the Chinese Army Win the Next War?' Beijing: Central Military Commission, 1993. Cited in Ashok Kapur, 'China and Proliferation: Implications for India,' *China Report*, vol. 34, nos. 3–4, July–December 1998, pp. 403–404.

29 The original Chinese No First Use doctrine as outlined in the letter submitted to the UN Secretary General on 28 April 1982 reads, 'at no time and under no circumstances will China be the first to use nuclear weapons, and it undertakes unconditionally not to use or threaten to use nuclear weapons against non-nuclear weapons countries and nuclear weapon free zones.' This position was changed on 5 April 1995 and was placed in the records of the Conference on Disarmament on 6 April 1995. According to this the Chinese policy not to use nuclear weapons 'naturally applies to non-nuclear weapon states parties to the Treaty on the Non-proliferation of Nuclear Weapons (NPT) or non-nuclear weapon states that have undertaken any comparable internationally binding commitments not to manufacture or acquire nuclear explosive devices.' Produced in Brahma Chellaney, *The India–Pakistan–China Strategic Triangle and the Role of Nuclear Weapons*, Proliferation Papers, Institut français des relations internationales, in collaboration with the Atomic Energy Commission (CEA), Winter 2002, p. 22 (fn. 26).

30 'Fernandes Sounds Warning on China' *Hong Kong Standard*, 5 May 1998; 'China "Greatest Threat to India",' *Financial Times*, 5 May 1998; John F. Burns, 'India's New Defense Chief Sees Chinese Military Threat,' *New York Times*, 5 May 1998; 'India Defense Minister Says China a Threat,' *Reuters*, 18 May 1998.

31 In a letter to the US President, the then India Prime Minister Atal Bihari Vajpayee cited the deteriorating security environment, making specific reference to the existence of China as an overt nuclear state that was helping India's arch rival in the region, Pakistan, to develop nuclear weapons, as grave enough security concerns in an environment of distrust which persists due to the unsettled border problem. This letter was leaked and appeared in the *New York Times*, see 'Nuclear Anxiety: India's Letter to Clinton on Nuclear Testing,' 13 May 1998.

32 Richard D. Fisher and John T. Dori, 'The Strategic Implications of China's Nuclear Aid to Pakistan,' *Executive Memorandum*, No. 532. Available at <http://www.heritage.org/research/asiaandthepacific/em532.cfm>.

33 Raju G.C. Thomas, 'India's Security Environment,' in P. Sahadevan, ed., *Conflict and Peacemaking in South Asia*, New Delhi: Lancer's Books, 2001, p. 64.



34 Kenneth N. Waltz, 'The Spread of Nuclear Weapons: More May Better,' *Adelphi Paper*, No. 171, London: International Institute for Strategic Studies, 1981.

35 Ibid.

36 For a detailed discussion of the reasons for failure of deterrence in South Asia, see Scott D. Sagan, 'Nuclear Dangers in South Asia,' *Forum on Physics & Society*, April 2004. Available at [http://iis-db.stanford.edu/pubs/20573/sagan\\_nuc\\_sasia.pdf](http://iis-db.stanford.edu/pubs/20573/sagan_nuc_sasia.pdf).

37 Ashley J. Tellis, 'Nuclear Stability in South Asia,' in P.R. Chari, Sonika Gupta and Arpit Rajan, *Nuclear Stability in Southern Asia*, New Delhi: Manohar, 2003, p. 20.

38 For a detailed discussion, see Kanti P. Bajpai, 'Managing a Strategic Triangle: India, China and Pakistan,' ed. P. Sahadevan, *Conflict and Peacemaking in South Asia*, New Delhi: Lancer's Books, 2001, pp. 81–105.

39 Ibid. pp. 87–88.

40 Ibid. pp. 88–91.

41 Ibid. p. 91.

42 Shaun Gregory, 'The Terrorist Threat to Pakistan's Nuclear Weapons,' *CTC Sentinel*, vol. 2, issue 7, July 2009, p. 3.

43 David Smith, *The Dragon and the Elephant: China, India and the New World Order*, London: Profile Books, 2007, p. 171.

44 Ibid.

45 Bhartendu Kumar Singh, 'India, China and the Politics of Regionalism,' 30 December 2005. Available at [http://www.ipcs.org/article\\_details.php?articleNo=1915](http://www.ipcs.org/article_details.php?articleNo=1915).

46 Ibid.

47 Fact Sheet on Foreign Direct Investment (FDI), From August 1991 to May 2009. Available at [http://www.dipp.nic.in/fdi\\_statistics/india\\_FDI\\_May2009.pdf](http://www.dipp.nic.in/fdi_statistics/india_FDI_May2009.pdf).

48 For example, In August 2005 in Kazakhstan, China's initial bid was US\$3.6 billion against India's US\$3.9 billion. China raised her bid to US\$4.18 billion overnight and won the contract. In the so-called cooperative bids, in the Sudan India pays US\$750 million for a 25 per cent share, compared with China paying \$US441 million for a 40 per cent share. For more on rivalry in the energy sector, see Gillian GOH Hui Lynn, 'China and India: Towards Greater Cooperation and Exchange,' *China: An International Journal*, vol. 4, no. 2, September 2006, pp. 263–84.

49 Christian Koch, 'China and Regional Security in South Asia,' in *The Balance of Power in South Asia*, Emirates Centre for Strategic Studies and Research, 2000, p. 76.

50 Mohan Malik, 'The China Factor in the India Pakistan Conflict,' *Parameters*, vol. 33, no. 1, Spring 2003, p. 47.

51 Lisa Curtis, China's Military and Security Relationship with Pakistan, Testimony before the US–China Economic and Security Review Commission, 26 May 2009.

52 Gaurav Kampani, 'Seven Years After the Nuclear Tests: Appraising South Asia's Nuclear Realities,' *NTI Issue Brief*, June 2005. Available at [http://www.nti.org/e\\_research/e3\\_64a.html](http://www.nti.org/e_research/e3_64a.html).

53 Sino–Russian Detargeting and No-First Use Agreement, September 1994.

54 US–China Non-targeting Agreement, June 1998.

55 The new national defence policy issued in December 2004 puts the increase in Chinese defence expenditure at 211.7 billion Yuan (US\$25.6 billion) in 2004 from 170.8 billion Yuan in 2002 and 190.8 billion Yuan in 2003. See Verna Yu, 'New China Defense Policy Focuses Threat On Taiwan,' *Space Daily*, 27 December 2004. Available at <http://www.spacedaily.com/news/china-05a.html>.

56 Richard Spencer, 'China's Military Ambition Fuels Asian Arms Race.' Available at telegraph.co.uk, 13 September 2008.

57 Ibid.

58 'China Increases Defence Budget by 14.9% in 2009,' Xinhua. Cited in, *Asian Defence Industry Monitor*, 4 March 2009.

59 In his response to a question related to China's willingness to be part of the global nuclear elimination process, Evans replied, '[t]hat remains to be seen. China is engaged in fairly enthusiastic modernisation and expansion at the moment.' He explained that China's concern over Taiwan and mutual concern between India and China would hold the key to the nuclear game. See Gareth Evans, 'Getting to Zero: Interview with Gareth Evans, Co-Chair of the International Nuclear Non-Proliferation and Disarmament Commission,' *international Crisis Group*, April 2009. Available at [www.crisisgroup.org/home/index.cfm?id=6039&1=1](http://www.crisisgroup.org/home/index.cfm?id=6039&1=1).

60 'Chinese Strategic journals have been vehemently opposing the Japan-US-Australia-India alliance of democracies' concept, calling it an "Asian NATO".' *China Daily*, 16 January 2007. Cited in D.S. Rajan, 'India's Place in China's South Asia Strategy,' *South Asia Analysis Group*, Paper no. 3127, 1 April 2009. Available at <http://www.southasiaanalysis.org/%5Cpapers32%5Cpaper3127.html>.

61 Asif Ali Zardari, 'Sino-Pakistan Relations Higher than Himalayas,' *China Daily*, 23 February 2009. Available at [http://www.chinadaily.cn/opinion/2009-02/23/content\\_7501699.htm](http://www.chinadaily.cn/opinion/2009-02/23/content_7501699.htm).

62 'China was embroiled in nuclear proliferation scandals throughout the late 1980s and early 1990s, particularly with respect to its sale of ring magnets to Pakistan in 1994.' Cited in S. Chandrasekharan, 'Cox Report and its Impact on Indian Security,' *South Asia Analysis Group Papers*, 16 June 1999. Most recently, it was learned that China provided Pakistan with a nuclear bomb design (used in China's October 1966 nuclear test). These designs were passed to Libya by the A.Q. Khan network and discovered by IAEA inspectors in 2004. See 'Nuclear Overview,' *China Profile, NTI*, March 2009.

63 'Annual Report to Congress: Military Power of the People's Republic of China, 2009,' Office of the Secretary to Defence, p. 57. Cited by Lisa Curtis, *Op. Cit.*

64 'Pakistan Profile,' *Nuclear Threat Initiative*, January 2009, 14 May 2009. Available at [http://www.nti.org/e\\_research/profiles/Pakistan/index.html](http://www.nti.org/e_research/profiles/Pakistan/index.html). See Lisa Curtis, *Op. Cit.*

65 Matthew Rosenberg, 'Pakistan Secures China's Help to Build 2 Nuclear Reactors,' *The Wall Street Journal*, 20 October 2008. Available at <http://online.wsj.com/article/SB122445373748048283.html>.

66 The two objectives are drawn from Brahma Chellaney's formulation of three objectives of China's proliferation activity. See Brahma Chellaney, *Op. Cit.*, p. 23.

67 Praful Bidwai and Achin Vanaik, *South Asia on a Short Fuse: Nuclear Politics and the Future of Global Disarmament*, New Delhi: Oxford University Press, 1999.

# Chapter 7

## South Asia's Nuclear Deterrence and the USA

Bhumitra Chakma

### Introduction

Before the 1998 South Asian nuclear tests, the United States pursued a policy of non-proliferation towards India and Pakistan and tried to prevent the two countries from building nuclear arsenals. Following the nuclear tests, the United States had to come to terms with the changed environment and re-evaluate its approach towards the region. Although Washington imposed economic sanctions on the two countries in reaction to their nuclear tests, it subsequently lifted those sanctions and accepted, albeit tacitly, the nuclear status of the two countries. Several factors facilitated this policy change. First, the terrorist attacks in the USA on 11 September 2001 and the rise of Pakistan and India as allies in the fight against terrorism. In particular, Pakistan emerged as a frontline state in the global fight against al Qaeda terrorists. Second, the long-term prospect of India as a counterweight to the rising Chinese power in Asia also prompted Washington to court New Delhi as a 'strategic partner'. Third, India's growing economy also opened up prospects for American business in that country.

Although Washington would, like New Delhi and Islamabad, sign the Non-Proliferation Treaty (NPT) as a non-nuclear weapons state, this is not the pressing concern of Washington today. Its pressing concerns now include the management of Indo-Pakistani crises so that nuclear war does not break out between India and Pakistan, and the safety of Pakistani nuclear weapons so that they do not fall into the hands of terrorists. The USA's earlier approach of non-proliferation towards South Asia has now been replaced with a role of crisis management and extending assistance to safeguard Pakistani nuclear assets.

South Asia is traditionally a crisis-prone region. This crisis-proneness of the region has apparently increased following the rise of an overtly nuclear South Asia. Since their nuclear tests, India and Pakistan weathered at least two crises – the 1999 Kargil conflict and the 2001–02 military stand-off – which had clear nuclear implications and in which Washington played a crucial role in de-escalating the crises. It appears that both India and Pakistan have now begun to take greater risks behind the shield of nuclear weapons, a trend that has made the region apparently more unstable. Analysts have dubbed this condition the ‘stability–instability’ paradox,<sup>1</sup> meaning stability has been achieved at the strategic level at the cost of lower-level instability. The danger in the South Asian ‘stability–instability paradox,’ however, is that a crisis could go out of control and escalate into a nuclear war. Indeed, India and Pakistan reportedly at least three times – once in the 1999 Kargil conflict and twice during the 2001–02 military stand-off – came close to escalation to nuclear level in the post-tests era.

It is unlikely that a nuclear war will result from deliberate actions of India and Pakistan. Nuclear war in South Asia is rather more likely from the unintended escalation of a crisis. The American role in South Asian deterrence is crucial in this context. Indeed, the criticality of the American role in such a context was vividly apparent during the two post-tests nuclear crises of the region: the 1999 Kargil conflict and the 2001–02 military stand-off. This chapter provides closer exposition of the American role in those two crises.

## **The Kargil Conflict**

### ***Origins and Pakistani Motivations***

Barely a year after the nuclear tests in May 1998, India and Pakistan fought a brief, but intense, war in the 150-km stretch of the Kargil region in the disputed territory of Kashmir. The conflict erupted in the early spring of 1999, when about 800 Pakistani regular and irregular forces took control of hilltops about 5–15 km inside the Indian area of the Line of Control (LoC). The control of these strategic heights put Pakistanis in an enabling position to disrupt Indian supplies, carried through National Highway 1A, to its forces in the Siachen Glacier and in the sensitive border areas between

Ladakh and China. As New Delhi became aware of the Pakistani intrusion in early May, India responded initially with ground assault and subsequently with air attacks to evict the Pakistani forces.<sup>2</sup>

There are conflicting accounts as to why Islamabad undertook such a strategically risky and politically unsettling operation. The origin of the operation is also not very clear, in particular on the issue of whether Prime Minister Nawaz Sharif was part of the operation's planning. The origin, the planning process and the execution of the operation were indeed shrouded in confusion, as various participants subsequently made various claims and counter-claims.

Sharif has claimed that it was the work of the country's armed forces and that his government was not part of the Kargil decision. He came to know about it only after the operation had begun and he squarely put the blame on the army chief, General Pervez Musharraf.<sup>3</sup> Sharply contradicting Sharif's version of the matter, General Musharraf has claimed that the prime minister was fully aware of the operation's decision and planning and that he was briefed at various stages of the operation. Sharif was briefed, according to Musharraf, as early as 15 days before Vajpayee's visit to Lahore at Kel in the Northern Areas.<sup>4</sup> Other military commanders who were involved in the Kargil operation are generally supportive of Musharraf's version. Air Commodore Kaiser Tufail, Director of Operations of the Pakistan Air Force during the Kargil conflict, has maintained that the operation was planned by the 'Army trio' of General Pervez Musharraf, 10 Corps Commander Lieutenant General Mehmud Ahmad, and Force Commander of the Northern Areas Major General Javed Hasan, but it had Sharif's 'tacit approval.' After a presentation, when Tufail was present, Sharif said: '*General sahib, Bismillah Karein*' (Mr General, go ahead).<sup>5</sup> General Mehmud Ahmad, a member of the 'Army trio' who took the Kargil decision, has similarly claimed that Sharif was fully aware of the Kargil operation.<sup>6</sup> Against the backdrop of such claims and counter-claims and in the absence of any authoritative government source materials, it is difficult to know what exactly happened. But an intelligent conjecture would be that the intrusion was secretly planned by the top brass of the Army and the planners briefed the prime minister from time to time; however the Army either did not tell the prime minister fully about the operation's objectives, or the prime minister failed to fully grasp the strategic and political implications of the operation.

What did the Kargil planners want to achieve? Although the planners had several tactical objectives, a key objective was to attract the attention of the international community, in particular the United States, in order to bring about a resolution of the Kashmir dispute.<sup>7</sup> At the time of the operation, the Kashmir issue was out of international sight for about a decade and an operation like Kargil would bring the issue back to the world's spotlight. Once the plan had been put into operation, the Pakistani leadership assumed, the Western fear of a nuclear conflagration would translate into Western interference, which would force India to come to the negotiating table. This would facilitate a third-party mediation and Islamabad would be able to negotiate from a position of strength. The outcome, Islamabad expected, would be a resolution of the Kashmir dispute on terms favourable to Islamabad.<sup>8</sup>

Although official documents are unavailable that can shed light on the Pakistani assessment of the nuclear implications of the operation, it is reasonable to infer that the Kargil planners must have given careful thought to New Delhi's reaction and the nuclear risk that it carried. It is difficult to tell with any certainty what they thought; they probably concluded that Pakistan's possession of nuclear weapons would restrain India from undertaking massive reactive military actions and the temptation to widen the conflict.<sup>9</sup> The Pakistani leadership probably also concluded that if the conflict were to escalate, the international community would come forward to de-escalate the crisis and bail Pakistan out diplomatically, due to the fear that the conflict might escalate to the nuclear level.

### *Course of the Conflict*

Indian forces first became aware of the Pakistani intrusion on 5 May, when one of its Army patrols spotted a group of infiltrators in the Yaldor area of Kargil. When a larger Army patrol was sent to investigate the infiltration on 8 May, the intruders ambushed the group, killing four Indian soldiers. New Delhi became fully aware of the extent of the intrusion only on 12 May, when aerial surveillance found that the intruders had taken 'well-fortified positions atop the ridges facing Dras, Kargil, Batalik, and the Muskho valley ... [and] began a systemic bombardment of National Highway 1A.'<sup>10</sup>

New Delhi immediately responded with ground assault supported by helicopter gunships to evict the Pakistani intruders. The Indian leadership

decided not to use air power at the initial phase of the conflict, probably assuming that ground assault would be good enough to evict the infiltrator. However, it soon became clear to the Indian leadership that ground assault alone would not be enough to evict the intruders, as Indian casualties steadily increased and the armed forces failed to retake the hilltop positions from the Pakistani forces. On 25 May, the Cabinet Committee on Security (CCS) gave the Indian armed forces a free hand to 'take any action necessary to evict the intruders.'<sup>11</sup> Although some members of the CCS were reportedly in favour of widening military action, it was decided not to extend operations beyond the LoC.<sup>12</sup> The decision by the Indian forces not to cross the LoC was taken due to the concern that it could escalate the crisis to a major Indo–Pakistani war. Furthermore, some CCS members argued that a restraint posture would generate tremendous diplomatic gains for India, which would outweigh the gain that could be achieved by widening the conflict. The Indian forces began massive air attacks on the intruders' positions within the Indian side of the LoC immediately after the CCS's 25 May decision. In the course of the air operations, India lost two jets and a helicopter, yet the Indian Army continued with air attacks.

The positions of the intruders remained solid until mid-June. From that time onward, the tide of the war began to turn, to India's favour. The Indian forces recaptured two important positions in Dras and Batalik sectors in mid-June and afterwards the Pakistani positions began to fall, one after another. As the Pakistani position became militarily untenable and Islamabad faced diplomatic isolation, the prime minister decided to call off the operation and sought American intercession to end the war. On 2 July Nawaz Sharif telephoned President Clinton to seek US help and then flew to Washington on 4 July to meet President Clinton. Clinton bailed Pakistan out by giving political cover for a Pakistani face-saving withdrawal and after that the war gradually came to an end.

### ***Explaining New Delhi's Restrained Behaviour and Escalation Pressure***

The most intriguing feature of the Kargil conflict was that it had remained a 'limited war' and did not turn into a large-scale Indo–Pakistani confrontation, which was a likely outcome given that the two countries had a history of going to war from such situations. Remarkably, both New Delhi and Islamabad behaved in a restrained manner that helped to avert an

impending Indo–Pakistani war. India’s decision not to widen the conflict was particularly significant and deserves careful evaluation.

There were three key reasons for India’s restrained behaviour. One, the concern that the conflict could escalate to the nuclear level. Two, Washington’s deterrence diplomacy during the course of the conflict restricted New Delhi’s military options. Three, New Delhi’s calculation, against the backdrop of Washington’s deterrence diplomacy, that by pursuing a policy of restraint India’s gains would be far greater than by using the military option. The Indian leadership assessed that by adopting a restraint posture, India would not only avoid the risk of a nuclear war but would also be able to put pressure on Pakistan, via Washington, to stop infiltration in Kashmir. Furthermore, New Delhi calculated that India would gain tremendously through international diplomacy at Pakistan’s cost, which eventually proved right as Pakistan confronted diplomatic isolation during the course of the conflict and was blamed for precipitating a nuclear crisis.

Despite the restrained behaviour of New Delhi and Islamabad, there was significant escalation pressure. Escalation, first of all, was inherent in the very outbreak of the conflict. For example, due to Pakistan’s possession of nuclear weapons, Islamabad calculated that the Indian response to the Kargil intrusion would be measured and India would accept the fait accompli of Pakistan’s capture of the Kargil heights. But in reality New Delhi’s response was massive and certainly beyond the Pakistani expectation. As Indian army chief of the time, General V.P. Malik, has maintained, India ‘was determined to get intrusion vacated’ and Pakistan ‘failed to take into account a hard military response by India.’<sup>13</sup>

New Delhi did not expect such an organised operation in Kashmir by Pakistan at a time when the Lahore process was under way. Hence, when India first learnt about the intrusion, the initial reaction was one of surprise.<sup>14</sup> In dealing with the intrusion, New Delhi, incorrectly, assumed that only ground attack would be good enough to evict the intruders and this could be done within a short period of time.<sup>15</sup> This assumption led the CCS to decide not to use the country’s air power. Indians, however, soon realised that greater firepower would be necessary to evict the intruders and decided on 25 May to use air power, reversing the earlier decision, thereby moving on to the next stage of the escalation ladder. The Indian government vowed that air strikes ‘would continue till our defence forces re-occupy our



territory' and '[A]ny escalation of this conflict will be entirely the responsibility of Pakistan.'<sup>16</sup> The introduction of air attack marked a new phase in the fighting, what analyst Suba Chandran described as 'a clear indication that India was ready to escalate the conflict to protect its interests.'<sup>17</sup>

Following the introduction of air power by India, military tension rose considerably. New Delhi's approach was assertive; as General V.P. Malik put it: 'If necessary we can cross the LoC in the supreme national interest, but the decision lies with the cabinet.'<sup>18</sup> Islamabad feared that India might be contemplating hot pursuit in Pakistani Kashmir. Against such a backdrop, Pakistan's foreign minister Sartaj Aziz threatened, albeit vaguely, to use nuclear weapons if needed. Aziz stated that Pakistan would take 'necessary action' to defend itself and 'We are retaliating and we will retaliate.'<sup>19</sup> A war of words threatened to take the conflict to a new height.

New Delhi's deployment posture and Islamabad's counter-deployment measures during the course of the conflict vividly highlighted the risk of escalation and miscalculations. When the CCS authorised the use of air power by the Indian Army, it also ordered the deployment of Indian forces along the India–Pakistan border and in the sea. Indian forces were deployed 'to ensure a balanced posture at the strategic level to deter Pakistan from escalating the conflict and prevent it from focusing solely on Kargil.'<sup>20</sup> The Indian army chief felt that India 'required a build up, not only in the Kargil–Leh sectors but also all along the rest of the Western border and coastline.'<sup>21</sup> And, behind the build-up, 'The message was clear. Not only was India preparing to strike hard in Kargil but if needed it could open other fronts and was willing to risk even a full-scale war.'<sup>22</sup> India even 'activated all its three types of nuclear delivery vehicles and kept them at what is known as Readiness State 3 – meaning that some nuclear bombs would be ready to be mated with delivery vehicles at short notice.'<sup>23</sup>

New Delhi denied any military preparations for an all-out war with Pakistan, although it acknowledged that 'defensive measures' were undertaken.<sup>24</sup> Many years later, however, it was revealed that Indian troops were within days of opening another front. General V.P. Malik, the Indian army chief of the time, ordered his senior commanders on 18 June to 'be prepared for escalation – sudden or gradual – along the LoC or the international border and be prepared to go to war at short notice.'<sup>25</sup> When

on 20 June Nawaz Sharif threatened ‘many more Kargil-like issues can crop up,’<sup>26</sup> the CCP concluded that ‘we had to be prepared for escalation.’<sup>27</sup>

Islamabad also undertook all-out military preparations to counter a possible Indian attack on Pakistan, including preparation for a nuclear war. US officials found that ‘On the eve of Sharif’s arrival [to Washington for the 4 July meeting] ... Pakistan might be preparing its nuclear forces for deployment.’<sup>28</sup> Nawaz Sharif has also revealed in his biography that General Musharraf had moved nuclear warheads for possible use against India.<sup>29</sup>

Behind the façade of the restrained behaviour of India and Pakistan, it is evident that there was considerable escalation pressure during the Kargil conflict. The significance of this factor during the war was that it could trigger a major war between India and Pakistan. Indeed, the risk of escalation was the greatest concern during the Kargil conflict. It was unlikely that New Delhi or Islamabad would have used nuclear weapons deliberately; instead nuclear use was more likely due to escalation and miscalculation.<sup>30</sup> It is in this context, as will be discussed below, that the US role in the Kargil conflict was critical. America’s deterrence diplomacy was indeed instrumental in preventing escalation and a possible deterrence failure in 1999.

### ***Role of the USA***

American deterrence diplomacy during the Kargil conflict was premised on the perception that India would mount a massive counterattack across the LoC and nuclear weapons would be used if a conventional war had broken out.<sup>31</sup> Although there were dissenting voices within the Clinton administration on whether New Delhi intended to widen the conflict and was prepared to fight a major war, yet the dominant view within the policymaking circles was that the conflict might get out of control. Bruce Riedel, a Clinton advisor on South Asia during the Kargil conflict, has stated that Washington had concrete evidence of nuclear-related movements during the conflict. He claims: ‘More information developed about the escalating military situation in the area – disturbing evidence that the Pakistanis were preparing their nuclear arsenals for possible deployment.’<sup>32</sup> Within the administration many believed that India and Pakistan were closer to a large-scale war, which could even be a nuclear one. An official

asserted that the conflict in Kargil ‘could have escalated out of control ... [and] could have brought in nuclear weapons, without either party deciding that it wanted to go to nuclear war.’<sup>33</sup> Such perceptions formed the basis of America’s deterrence diplomacy and its deep involvement in South Asia during the Kargil conflict.

Once the conflict erupted, the international community became alarmed at the prospect that it could unleash a wider Indo–Pakistani war, which could escalate to nuclear level. The United States, as the sole superpower at the time, took an active role in the international effort to defuse the conflict. Particularly following the introduction of air attacks by India, US deterrence diplomacy was put on a high gear. As the conflict intensified, Washington concluded that the only way to prevent a full-scale war was to withdraw the Pakistani forces behind the LoC. Assistant Secretary of State for South Asia Carl Inderfurth and Under Secretary of State Thomas Pickering informed the Pakistani and Indian ambassadors to Washington of the US position.<sup>34</sup> In subsequent weeks this remained the basis of US deterrence diplomacy to defuse the crisis. In late May, US Deputy Secretary of State Strobe Talbott met with Indian Foreign Minister Jaswant Singh in Moscow. They worked out that the United States would put firm pressure on Pakistan over Kargil and that New Delhi would not cross the LoC or escalate the conflict.<sup>35</sup>

On 3 June, President Clinton sent letters to the prime ministers of India and Pakistan in which he urged them to take steps to defuse the crisis and respect the LoC.<sup>36</sup> Still the conflict deepened in the coming days. Washington became even more alarmed when President Clinton received a letter in mid-June from the Indian prime minister in which Vajpayee said that India might have to attack across the LoC or international border if Pakistani troops did not withdraw immediately.<sup>37</sup> At an intensifying stage of the conflict, when credible intelligence reports suggested that both countries were making vigorous military preparations, the US president called the prime ministers of India and Pakistan and urged them to refrain from widening the conflict.<sup>38</sup>

Alarmed at the developments, Clinton dispatched the commander-in-chief of the US Central Command, General Anthony Zinni, and Deputy Assistant Secretary of State Gibson Lanpher to Islamabad to put pressure on the Pakistanis to withdraw the intruders and restore the sanctity of the LoC. They stayed in Pakistan from 23–27 June and met with army chief General

Pervez Musharraf and Prime Minister Sharif. They made the American position clear by stating that the only way forward to defuse the crisis was to withdraw the Pakistani forces. Zinni told the Pakistani leaders, 'If you don't pull back, you're going to bring war and nuclear annihilation down on your country. That's going to be very bad news for everybody.'<sup>39</sup> The US general offered a meeting of the Pakistani prime minister with President Clinton to end Pakistan's diplomatic isolation. After some foot-dragging, Musharraf and Sharif finally agreed to withdraw the Pakistani forces behind the LoC and accepted the offer of a meeting of the Pakistani prime minister with President Clinton.

After receiving 'fairly clear' assurance of withdrawal from the Pakistani leaders,<sup>40</sup> Gibson travelled to New Delhi and explained to the Indian leaders that the crisis was about to end on the terms that New Delhi wanted all along. He urged the Indians to maintain restraint in the face of severe temptations to escalate the fighting.<sup>41</sup> Those visits were significant because they were pursued at a critical juncture of the conflict and they facilitated the two countries to pull themselves back from the brink of escalation.

In the meantime, Washington encouraged other international players to play their part in defusing the crisis and coordinated its deterrence diplomacy with theirs. In particular it encouraged China and Saudi Arabia to put pressure on Islamabad to withdraw its forces behind the LoC. In this context, Beijing's role was critical; during the crisis China refused to support the Pakistani position. Moscow maintained a similar position during the crisis and urged Pakistan to withdraw its forces in order to return to status quo ante.<sup>42</sup> At the G-8 summit, the USA persuaded others to take the US approach for the resolution of the crisis. The communiqué issued on 20 June called for the 'restoration of the line of control.'<sup>43</sup>

As Islamabad faced diplomatic isolation and by late June things became militarily untenable for Pakistan, the Pakistani leadership began to search for ways of bringing about a face-saving conclusion of the war so that it did not look like a humiliating defeat for Pakistan. Even General Musharraf recognised the unsustainability of the Pakistani military positions by late June, as food, water and ammunition supplies to the Pakistani forces dwindled.<sup>44</sup> It was against such a backdrop that Musharraf and Sharif accepted Zinni's terms for ending the conflict. Pakistan's prime minister called the US president on 2 July and asked for his assistance. Nawaz Sharif then flew to Washington and met the US president on 4 July. In the meeting,

Clinton asked Sharif for an immediate retreat of the Pakistani intrusion and to respect the LoC. At one point, Clinton warned Sharif: ‘You’ve put me in the middle today, set the US up for fail and I won’t let it happen. Pakistan is messing with nuclear war.’<sup>45</sup> Despite Clinton’s unusually direct words, Washington ultimately played like a neutral referee and bailed Pakistan out by helping it to make a face-saving withdrawal.<sup>46</sup> In its aftermath, despite some complexities, the Pakistani withdrawal was completed by the end of July.

### *Assessment*

The criticality of the US role in the Kargil conflict can be understood from three standpoints. First, the USA was an important strategic factor in Pakistan’s planning for the Kargil intrusion, as well as in India’s response. Second, America’s deterrence diplomacy was instrumental in preventing escalation during the course of the conflict and in forestalling a possible deterrence failure. Three, Washington played a vital role in ending the conflict.

The USA was an important factor in the strategic calculation of Pakistan when it planned for the Kargil intrusion. The key objective of Pakistan in undertaking the Kargil incursion was to attract the mediation of a third party – the US – on Kashmir by creating the fear that nuclear war could break out if the international community failed to intervene. Furthermore, Pakistanis also calculated that if the conflict were to escalate, Washington would bail Pakistan out. As Scott Sagan has argued:

the possibility of [external] intervention may encourage the governments of India and Pakistan to engage in risky behaviour, initiating crises or making limited uses of force, precisely because they anticipate (correctly or incorrectly) that other nuclear powers may bail them out diplomatically if the going gets rough.<sup>47</sup>

Similarly, New Delhi’s moves during the Kargil conflict entailed the United States as an important factor. Indeed, in the conflict, New Delhi relied heavily on this US pledge. Prior to the G-8 summit in Cologne, Vajpayee wrote a personal letter to Clinton seeking his intervention, stressing that he was under pressure to permit the Indian army to cross the LoC so as to encircle the intruders, cut off their supply lines and crush them.<sup>48</sup>

As is discussed above, although both New Delhi and Islamabad behaved in a restrained manner, there was formidable escalation pressure in the Kargil conflict. Washington's deterrence diplomacy played a decisive role in easing the escalation pressure. Indeed, American deterrence diplomacy forced India and Pakistan out of the military option and helped forestall possible deterrence failure due to escalation. The Clinton administration employed a number of tactics for this, ranging from telephone calls and high level visits to the region to direct and indirect pressure on both governments to back down from the brink. In particular, Washington played the 'alignment' card with great dexterity, which had a great impact on the policies of both India and Pakistan. Both were well aware that US support for either party would tilt the balance of forces immediately and determine the outcome of the conflict. Hence, each wanted to ensure that its policy did not earn the wrath of the world's only superpower.

The prevention of escalation was perhaps the most critical contribution of the US deterrence diplomacy in the conflict. As noted above, the use of nuclear weapons in the conflict was more likely due to escalation rather than deliberate policy. Military history demonstrates that sometimes it is difficult to control escalation when military dynamics gain momentum. For example, during the First World War no one wanted war, but the steady intensification of the security dilemma led the big powers towards this 'Great War.' Without the US's deterrence diplomacy, escalation could have occurred in the Kargil conflict.

The US role was pivotal in the termination of the war. Without America's help for a Pakistani face-saving retreat, the war could have continued, and could therefore have ended in a completely different way.

There is no doubt that nuclear weapons induced caution in both capitals and affected the behaviour of both parties during the conflict. But, as is argued above, this was not the most critical issue in the context of the likelihood of deterrence failure in the Kargil conflict, because no one expected that any party would use nuclear weapons deliberately. Rather, the biggest challenge during the conflict was the problem of inadvertent use of nuclear weapons due to escalation. It is in this context that Washington's deterrence diplomacy was critical to prevent possible deterrence failure. As Dinshaw Mistry has observed:

Nuclear weapons did induce some caution in decision making, and dissuaded the parties from quickly escalating their crises to large-scale war. Yet while they deterred quick escalation,

nuclear weapons may not have ultimately deterred the parties from escalating military hostilities. Had these crises [Kargil conflict and 2001–02 crises] not been eased by third-party diplomacy [USA], one or both sides could have significant military escalation, possibly leading to a large-scale war [or deterrence failure].<sup>49</sup>

Therefore, it is arguable that America's deterrence diplomacy helped maintain crisis stability in 1999.

## **The 2001–02 Military Stand-off**

In 2001–02, about two and a half years after the Kargil conflict, India and Pakistan found themselves embroiled in another potentially explosive crisis that could have ended in nuclear exchange. The crisis erupted on 13 December 2001, when New Delhi, adopting a strategy of compellence, mobilised its armed forces in reaction to the terrorist attack on the Indian Parliament by Pakistan-based terrorist groups. Islamabad counter-mobilised its forces as a precaution against a potential Indian attack; thus a ten-month long, face-to-face tense military standoff ensued between the forces of the two countries. The crisis ended in October 2002 when New Delhi announced its decision to withdraw its forces from the border regions. The United States and other international actors played an important role in ending the crisis.

### ***Origins and Course of the Conflict***

Although the immediate cause of the crisis was the terrorist attack on the Indian national parliament on 13 December 2001, the developments in the preceding months had prepared the ground for such a crisis. New Delhi's outburst against Pakistan after the attack was the result of rapidly deteriorating relations between the two countries and increased cross-border infiltration and insurgency activities in Kashmir. On 1 October 2001, a truck filled with explosives rammed into the main gate of the Jammu and Kashmir assembly building. The attack was carried out by Jaish-e-Mohammad (JeM) operatives and killed 38 people. New Delhi blamed Pakistan for the attack and India's Ministry of External Affairs issued a stern warning, based on the decision made at a meeting of the CCS, that 'India cannot accept such manifestation of hate and terror from across its

borders. There is a limit to India's patience.'<sup>50</sup> About two and a half months after this attack, on 13 December, when the Pakistan-based terrorists struck again, this time on the Indian national parliament in New Delhi, with the primary objective of killing or taking hostage parliament members,<sup>51</sup> the Indian government reacted sharply and swiftly. Prime Minister Atal Behari Vajpayee described it as 'an attack on the Indian nation' and declared: 'Our fight is now reaching the last stage, and a decisive battle will have to take place.'<sup>52</sup>

New Delhi accused the Pakistan-based terrorist groups – Laskar-e-Toiba (LeT) and JeM – for the attack and implicitly implicated Pakistan's intelligence agencies in providing clandestine aid to the groups. It urged Islamabad to take swift and decisive action against these two terrorist outfits, take their leaders into custody and freeze their financial assets. The Indian government also demanded an end to terrorist infiltration into Kashmir and the extradition of 20 terrorists from Pakistan to India for trial. The Pakistani government refused to extradite those persons on the ground that there was no 'credible evidence' to process their extradition.<sup>53</sup>

To back up the demands, New Delhi adopted a strategy of compellence by ordering a full-scale mobilisation of its armed forces, code-named *Operation Parakram* ('Valour'), towards the India–Pakistan border and the Line of Control. On 18 December 2001 Prime Minister Vajpayee called the three service chiefs and told them to prepare for war with Pakistan.<sup>54</sup> In the following weeks 800,000 troops were deployed in the border regions. Indian air force units and satellite airfields were activated and the Indian Air Force prepared itself within two weeks to strike against terrorist training camps in Pakistan-administered Kashmir.<sup>55</sup> The Indian navy's eastern fleet in the Bay of Bengal was moved to the northern Arabian Sea. India suspended bus and train communications and banned the flight of Pakistani aircraft over Indian territory. New Delhi withdrew its high commissioner from Islamabad and asked Pakistan to withdraw half of its diplomatic staff from New Delhi. Islamabad in response counter-deployed its armed forces and reportedly moved its nuclear-capable Hatf-1 and Hatf-2 missiles to the border regions. War clouds lurked on the horizon of the subcontinent.

By early January 2002 it appeared that New Delhi was tantalisingly close to attacking Pakistan. Prime Minister Atal Behari Vajpayee was reportedly in favour of air strikes against terrorist training camps in Pakistan-administered Kashmir, as he was enraged by the turn of events and



felt betrayed because the attack had come against the backdrop of his personal initiatives to mend relations with Pakistan. He was only persuaded by some senior members of the CCS, who thought that air strikes would risk a nuclear war and jeopardise the diplomatic advantage India might gain at Pakistan's cost.<sup>56</sup> Indian officials maintained that in Vajpayee's view the risk of nuclear war was small, yet he saw no big advantage in precipitating a nuclear crisis.<sup>57</sup> Furthermore, the international community became alarmed by the prospect of a war between the two countries and put pressure on both sides to defuse the crisis. By the end of January, the intensity of the crisis and the immediate threat of India attacking Pakistan subsided. Three factors were accountable for this. First, the risk of a nuclear war due to crisis escalation was substantive, which induced caution on both sides. Second, Washington's deterrence diplomacy, as will be discussed below, played a critical role in defusing the crisis. Third, the majority of Indian policy elites assessed that international diplomacy and pressure from the United States on Pakistan to end infiltration in Kashmir would serve India's interests better than otherwise. Although the immediate threat of a wider Indo-Pakistani conflict receded by late January, New Delhi decided not to demobilise its forces from the border areas.

On 14 May 2002, militants massacred 38 people, mostly members of military families, in an army camp at Kaluchak, Jammu. The incident immediately revived the dormant military tension between the two countries. Following the massacre, New Delhi publicly expressed its exasperation and disappointment over the ineffectiveness of US pressure on Islamabad to end infiltration in Kashmir and to take action against terrorist outfits. The Indian government vowed that it would take an 'appropriate decision' to deal with the situation. The opposition political parties extended their unconditional support for the government's move.<sup>58</sup> By early June 2002, the Indian armed forces again came very close to initiating offensive operations against Pakistan.<sup>59</sup> Eventually of course New Delhi did not carry out any such offensive operations primarily due to the fear of crisis escalation and pressure from the United States to maintain restraint.

After peaking twice in January and June, the crisis eventually came to an end when New Delhi unilaterally announced its decision to withdraw its forces from the border regions on October 16, 2002. The Indian government claimed that the withdrawal decision was taken because the objectives of the mobilisation had been achieved.

## *The US Role*

As soon as the terrorist attack on the Indian Parliament occurred and military buildup began, Washington activated its diplomatic machinery, anticipating that a major crisis could ensue. America's deterrence diplomacy during this crisis was pursued based on the assumption that a 'major miscalculation' by either side could trigger a war, because neither side, in the view of American officials, 'seems to have a great grasp of the other's doctrine or limits.'<sup>60</sup> Although there was disagreement within the Washington policymaking community about the inevitability and imminence of an Indo-Pakistani war,<sup>61</sup> there was however a consensus among all quarters that war was likely due to miscalculation, misperception, leadership failure, or escalation.

Washington employed a variety of means to pursue deterrence diplomacy in 2001–02: unilateral actions against Pakistan-based terrorist groups; telephone calls and cautionary advice to the Indian and Pakistani leaders; regular visits of American officials to the subcontinent during the period of the crisis and high level visits at critical moments; diplomatic coordination with other key international players such as Britain, Germany, Japan, Russia and China; and prodding, persuasion and pressure when and where necessary.

President Bush called the Indian prime minister on the day the terrorist attack took place. Occurring barely two months after the terrorist attacks on the USA in September, the president expressed sympathy and solidarity with the Indian people in the fight against terrorism. America's ambassador to India made highly visible gestures that highlighted America's deep concerns about the growing tide of terrorism. Washington extended an 'open-ended' offer of FBI assistance to the Indian authorities in the investigation of the attack,<sup>62</sup> although Indians eventually did not utilise FBI assistance.

Washington also swiftly moved against the terrorist groups that were suspected of carrying out the attack. On 21 December, the Bush administration froze the assets of the LeT and on 27 December designated the LeT and the JeM as foreign terrorist organisations. These unilateral actions highlighted two things. First, Washington was becoming concerned about the growing ability of terrorist groups to strike beyond their home base. Second, the Bush administration was expressing its solidarity with

India in the fight against terrorism, which entailed an element of America's deterrence diplomacy.

The United States, Britain and the European Union on December 24 issued demarches to Pakistan demanding that Islamabad ban the LeT and the JeM. Simultaneously, major international actors put pressure on New Delhi to abandon its plan for air strikes against terrorist training camps in Pakistan-administered Kashmir. Sustained diplomatic pressure and persuasion both appeared to have made a significant impact on New Delhi and Islamabad. New Delhi reportedly slowed down or halted its preparations for war on the night of 5–6 January 2002.<sup>63</sup>

Similarly, Islamabad appeared to have begun to take action against the LeT and the JeM by arresting their leaders, freezing their assets and locking up their offices. On 12 January 2002, Musharraf in an address on national television told his fellow countrymen that Pakistan faced a dark choice between violent extremism and lawlessness, on the one hand and tolerant, educated, law-abiding, strong and progressive Islamic society on the other. Announcing a ban on five militant outfits, he promised that no organisation would be allowed to indulge in terrorism in the name of Kashmir.<sup>64</sup> Washington played the key role in persuading Islamabad to adopt a new approach (although short-lived or perhaps not genuinely intended) towards militant organisations that was manifested in Musharraf's TV address. Indeed, the Bush administration, according to US officials, 'provided detailed advice to Musharraf on the content of the speech.'<sup>65</sup> The Vajpayee government 'welcomed' the steps taken by Islamabad against the LeT and the JeM.<sup>66</sup> Following Musharraf's TV address, Pakistan apparently took steps to control extremist organisations and there was a visible reduction in militant activities in Kashmir in the period from January to April (2002).<sup>67</sup>

Despite these positive developments, there were 'war clouds all over the place' in January against the background that New Delhi was determined to sustain pressure on Islamabad through its strategy of compellence and that Islamabad maintained a high degree of military alertness by mobilising its troops to counter a possible Indian attack. President Bush telephoned Vajpayee and Musharraf on 13 January and advised the two leaders to take steps to defuse the crisis. The US president then immediately dispatched his Secretary of State Colin Powell to the region, who arrived in Islamabad on 16 January and travelled to New Delhi the following day. This was one of the most crucial visits from Washington to the subcontinent during the

January peak of the crisis and was undertaken at a time when the pressure of escalation was extremely high. Powell's deterrence diplomacy in New Delhi is particularly noteworthy: he persuaded the Indian policymakers to forswear the military option by indirectly indicating that India might lose US favour if it had gone ahead with its plan to attack Pakistan. He assured the Indian leaders that 'the level of activity over the Line of Control might be coming down' as 'orders [by Pakistani authorities are] being given.'<sup>68</sup> It implied that Washington would continue to put pressure on Musharraf to live up to his pledge by taking concrete actions to stop cross-border infiltration. America's diplomatic intervention in the December–January period altered the strategic calculations of New Delhi and, as a result, India began to rely more on Washington's pledge that America would put pressure on Pakistan to take action against the terrorist outfits. As an Indian scholar rightly points out, Washington's diplomatic intervention changed New Delhi's strategic calculations and pushed New Delhi to a 'no-war option.'<sup>69</sup>

Although the fear of a wider Indo–Pakistani conflict in January gradually receded in the following months, the terrorist attack on the army camp at Kaluchak in May revived military tensions. This time the likelihood of a large-scale war appeared even higher than in January due to the deployed status of their troops. Indeed, during the second peak of the crisis, war seemed inevitable. On 24 May, *The Washington Post* reported that New Delhi was planning to launch an attack across the LoC.<sup>70</sup> Most policymakers in Washington concluded that there was hardly any leeway this time to avert the impending war. The Bureau of Intelligence and Research within the State Department also concluded that war between India and Pakistan was imminent.<sup>71</sup> The Pentagon even prepared a contingency plan for the evacuation of American nationals from South Asia. The US ambassador in New Delhi, Robert Blackwill, advised all dependents and non-essential staff to leave India.

As military tension heightened, Washington again geared up its deterrence diplomacy. However, while it prodded both India and Pakistan to take steps to ease tension, Washington specifically put pressure on Islamabad to crack down on militant organisations and stop infiltration into Indian Kashmir. President Bush explicitly demanded that Islamabad must take steps to 'stop incursions across the Line of Control.'<sup>72</sup> American sustained pressure on Pakistan forced Islamabad to take a firm decision on

the issue of infiltration. Musharraf said at a crucial cabinet meeting before his TV address to the nation on 28 May that the international community was firmly on India's side and the Pakistani attempt to distinguish between freedom fighters and terrorists had failed. Hence, the only way to avoid a war with India was to shut down terrorist groups operating from inside Pakistan.<sup>73</sup> On his 28 May TV address, Musharraf stated that infiltration through the LoC had been stopped. He also pledged that Pakistan would not allow the export of terrorism anywhere in the world from the soil of Pakistan.<sup>74</sup>

Despite these positive developments, war clouds nonetheless remained and military tension was intensifying because New Delhi was bent upon seeing concrete results and was relentless in its pursuit of the strategy of compellence. President Bush called Vajpayee and Musharraf on 5 June and issued a statement urging both New Delhi and Islamabad to take steps to ease military tensions.<sup>75</sup> Bush also sent his Deputy Secretary of State Richard Armitage to the subcontinent at this critical stage of the crisis. On 6 June 2002, Armitage secured a 'clear pledge' from Musharraf that cross-border infiltration of terrorists would 'visibly and permanently' cease and this 'would be followed by other activities that had to do with the dismantling of the camps that led to the capacity to conduct these kinds of operations.'<sup>76</sup> The Deputy Secretary immediately conveyed the message to New Delhi. US Defence Secretary Donald Rumsfeld also discussed the issue with the Indian leaders when he visited India on 11 June. Soon thereafter, both sides made positive moves that reduced the military tension, which eventually culminated with the Indian decision in October to demobilise its forces from the border areas.

### *Assessment*

The US's sustained deterrence diplomacy critically influenced the dynamics and outcome of the 2001–02 crisis. Washington employed a myriad of tactics ranging from telephone calls and cautionary advice to high-level visits and indirect pressure to prevent possible deterrence failure. Of these, 'back-to-back visits by US officials, with an eye to defusing tensions and postponing decisions to launch hostilities' were particularly effective.<sup>77</sup> Not only were high-level visits, i.e. by Collin Powell and Richard Armitage, undertaken at crucial times, but the South Asia Bureau of the State

Department also played a pivotal role in the successful pursuit of US deterrence diplomacy. Christina Rocca, Assistant Secretary of State for South Asia, visited the region roughly once a month during the whole ten-month period and played a key role in preventing crisis escalation. Furthermore, the US's direct and indirect pressure was instrumental in moving India and Pakistan towards a 'no-war' option.

The US role during the crisis was specifically significant from two standpoints. First, Washington's deterrence diplomacy was instrumental in restricting New Delhi's war options. During the crisis, war was likely by design or due to escalation. New Delhi's military mobilisation from 18 December to 5 January was intended to attack Pakistan. Prime Minister Vajpayee indeed wanted to carry out at least limited strikes against the terrorist training camps in Pakistan-administered Kashmir. During this period of Indian military build-up, US diplomacy pushed New Delhi to a 'no war' position.

Second, Washington acted during the crisis based on the assumption that war, even a nuclear war, was likely due to escalation and miscalculation if not by deliberate action. Indeed an Indo-Pakistani war could occur due to the intensifying security dilemma even though no one intended it. The risk of deterrence failure in 2001–02 was greater due to escalation and miscalculation than by design. The main aim of the Bush administration's actions was to prevent escalation. In an interview with NBC TV, Colin Powell stated that India should not react militarily because 'it might create a much more difficult situation which could spiral out of control.'<sup>78</sup> Indian commentator Raja Mohan concluded that New Delhi had to heed an 'abiding concern in the US – that an Indian military response to cross-border terrorism from Pakistan could escalate the confrontation between the two nations to the nuclear level.'<sup>79</sup> The US role in the 2001–02 crisis was particularly significant because Washington's deterrence diplomacy prevented the two conflicting parties from a slide into an escalation ladder that could end in nuclear exchange.

What prompted the US to play such a role in the 2001–02 South Asian crisis? There were three key reasons for this. First, it was part of America's responsibility, as the top dog in the contemporary international system, to maintain the system's stability and security. Second, the normative consideration of preventing a nuclear war significantly affected US deterrence diplomacy in the crisis. Third, America's diplomatic intervention

was also prompted by its vital strategic interests. Any Indian attack on Pakistan in 2001–02 would have significant implications for the American-led global fight against terrorism, particularly in Afghanistan. Had India attacked Pakistan, the latter would have no other alternative but to move its forces from its western border to its eastern border to fight against the Indian army, thereby hampering American war efforts in Afghanistan. Indeed, from the onset of the crisis Washington wanted to ensure that its war on terror was not derailed due to a war between India and Pakistan.<sup>80</sup>

Why was America's deterrence diplomacy effective in the 2001–02 crisis? It was for two key reasons. First, the fear of losing American support or alignment made New Delhi and Islamabad susceptible to Washington's deterrence diplomacy. Both feared that Washington's support for or alignment with either side could tip the balance of forces during the crisis in favour of the opponent and would determine the outcome of the conflict. So both had to heed what America was up to and the policy pursuits and strategies of both India and Pakistan were profoundly influenced by American diplomacy.<sup>81</sup> The general implication of this factor is that regional nuclear powers and regional deterrence systems are subject to the penetration of external and systemic forces.

Second, each wanted to use the US to realise its own strategic objectives. India's primary motive behind the mobilisation was to force Islamabad to take effective actions to stop infiltration from Pakistan to Indian Kashmir and to dismantle the terrorist organisations operating from Pakistan. India's military mobilisation was not only a strategy of 'compellence' but New Delhi also adopted such a policy to induce the USA to intervene and put pressure on Islamabad by creating the fear that a nuclear war might break out. Rajesh Basrur concludes that *Operation Parakram* 'aimed at putting Pakistan under intense US pressure to desist Pakistan from supporting cross-border terrorism.'<sup>82</sup> Similarly, P.R. Chari has concluded: 'India's movement of troops toward the border was designed to put pressure on the US to put pressure on Musharraf.'<sup>83</sup> Islamabad's policies also aimed at inducing the US to intervene and restrain India from attacking Pakistan. Therefore, the US was a key factor in the Indian and Pakistani strategic calculations during the 2001–02 crisis. It made Washington's deterrence diplomacy efficacious.

## Conclusion

This chapter has examined the role of the United States in the Indo–Pakistani immediate deterrence dynamics. Two particular crises – the 1999 Kargil conflict and the 2001–02 Indo–Pakistani military stand-off – are explored to locate the position of the United States in the South Asian deterrence structure and explain its role. The findings of this chapter demonstrate that in both cases the United States played a pivotal role in preventing the outbreak of large-scale conflict between India and Pakistan. Without the US’s effective deterrence diplomacy, deterrence failure due to escalation or inadvertence was a likely outcome in those crises. Crisis and deterrence stability in South Asia are critically dependent on American deterrence diplomacy, even though the nuclear arsenals of India and Pakistan play their part in the equation. Put simply, the United States is an integral element of Indo–Pakistani deterrence dynamics, which makes the South Asian nuclear deterrence a three-dimensional deterrence system.

There is an obvious paradox in the strategic politics of South Asia, which facilitates US penetration into the region’s deterrence dynamics and makes it deeply entrenched. Due to relative weaknesses of India and Pakistan and because of their long-standing security rivalry, the two countries have traditionally sought support from and alignment with the United States. This tendency is enhanced at the time of a crisis. The advent of nuclear weapons has made the proclivity to seek US support even deeper. While with nuclear weapons India and Pakistan have begun to take more risk in their encounters, this has pushed them to be more dependent on the US to pull them back from the brink of war. The more crises India and Pakistan went through since they acquired nuclear weapons capability, the more they became dependent on the United States to defuse their crises. Such a trend in the strategic politics of South Asia led to the growth of a classic dilemma: India and Pakistan wanted to gain strategic autonomy through building nuclear weapons, but ironically they became more dependent on the United States. Indeed, in a nuclearised South Asia, the role of the US has increased in the context of ensuring crisis stability<sup>84</sup> and India and Pakistan have gradually become ever more dependent on the United States to prevent likely deterrence failure. As Feroz H. Khan has concluded:

An examination of the five South Asian crises [Siachen, Brasstacks, 1990 Kashmir crisis, Kargil conflict, 2001–2 military crisis] over the past two decades reveals that India and Pakistan



managed earlier crises without overt outside intervention, but as their capabilities increased, the level of crises also worsened. In fact each crisis was more severe than the previous one, and the United States became more involved.<sup>85</sup>

The interesting question is, what if the United States fails to extend a similar level of support in a future Indo–Pakistani crisis? There is no easy answer to this question. Crisis is likely to occur intermittently in South Asia in the foreseeable future and it does not appear that India and Pakistan have established a reasonable level of deterrence/crisis stability. The way out possibly lies in strengthening mutual deterrence through serious confidence-building and nuclear arms control initiatives. India and Pakistan will do better if they do so. In making this happen, the US role will be significant. In the meantime, the US will continue to play a pivotal role in the dynamics of Indo–Pakistani deterrence.

1 The idea of the ‘stability–instability paradox’ was first noticed by Basil Liddell Hart and subsequently definitively developed by Glen Snyder. The concept was eventually presented in a sophisticated fashion by Robert Jervis. See Basil Liddell Hart, *Strategy* (New York: Praeger, 1954); Glen H. Snyder, *Deterrence and Defense: Toward a Theory of National Security* (Princeton, NJ: Princeton University Press, 1961); Glen H. Snyder, ‘The Balance of Power and the Balance of Terror,’ in Paul Seabury, ed., *The Balance of Power* (San Francisco, CA: Chandler, 1965); Robert Jervis, *The Illogic of American Nuclear Strategy* (Ithaca, NY: Cornell University Press, 1984). For the concept’s South Asian application, see Sumit Ganguly, ‘India–Pakistan Nuclear Issues and the Instability/Instability Paradox,’ *Studies in Conflict and Terrorism*, vol. 18, issue 4 (1995), pp. 325–34); Michael Krepon and Chris Gagné, eds., *The Stability–Instability Paradox: Nuclear Weapons and Brinkmanship in South Asia*, Report no. 38 (Washington, DC: Henry L. Stimson Center, 2001). For an opposing view, see Varun Sahni, ‘The Stability–Instability Paradox: A Less than Perfect Explanation,’ in E. Sridharan, ed., *The India–Pakistan Nuclear Relationship: Theories of Deterrence and International Relations* (London: Routledge, 2007), pp. 185–207.

2 John H. Gill, *Military Operations During the Kargil Conflict* (Washington, DC: US National Defense University, 2003); Shireen M. Mazari, *The Kargil Conflict: Separating Fact From Fiction* (Islamabad: Institute of Strategic Studies, 2003); Jasjit Singh, *Kargil: Pakistan’s Fourth War for Kashmir* (New Delhi: South Asia Books/IDSA, 1999); Ashley Tellis, C. Christine Fair, Jamison J. Medby, *Limited Conflict Under the Nuclear Umbrella: Indian and Pakistani Lessons from the Kargil Crisis* (Santa Monica CA: RAND, 2001); Peter R. Lavoy, ed., *Asymmetric Warfare in South Asia: The Causes and Consequences of the Kargil Conflict* (Cambridge: Cambridge University Press, 2009).

3 B. Muralidhar Reddy, ‘Over 4,000 soldiers killed in Kargil: Sharif,’ *The Hindu*, 17 August 2003.

4 ‘Kargil planned before Vajpayee’s visit: Musharraf,’ *Indian Express*, 13 July 2006.

5 Manu Pubby, ‘Pak commander blows the lid on Islamabad’s Kargil plot,’ *Indian Express*, 12 June 2009.

6 According to Lieutenant General Mehmud Ahmed, Sharif was briefed about the mission in January 1999 during his visit to Neelam Valley outposts and again when he visited the area to review the situation at the front before the attack. Quoted in Neil Joeck, ‘The Kargil War and nuclear deterrence,’ in Sumit Ganguly and S. Paul Kapur, eds., *Nuclear Proliferation in South Asia: Crisis behavior and the bomb* (London: Routledge, 2009), n. 10, p. 140.

7 Shaukat Qadir, ‘An Analysis of the Kargil Conflict 1999,’ *RUSI Journal*, April 2002. Pakistan’s concerted diplomatic activities during the course of the conflict also support the argument that a third-party mediation was very much in the minds of the Pakistanis for undertaking the mission. Not only were its diplomats, foreign ministry and foreign minister involved in this campaign but Sharif also stated on 28 May that he had sent a letter to the United Nations requesting its mediation. See, ‘Pakistan Calls for UN Intervention,’ *The News*, 29 May 1999.

8 Devin T. Hagerty, ‘Kashmir and the Nuclear Question Revisited,’ in Craig Baxter and Charles H. Kennedy eds., *Pakistan 2000* (Lexington, MA: Lexington Books, 2000), p. 91.

9 Hagerty, Devin T., ‘The Kargil War: An Optimistic Assessment,’ in Sumit Ganguly and S. Paul Kapur, eds., *Nuclear Proliferation in South Asia: Crisis Behaviour and the Bomb* (London: Routledge, 2009), p. 103.

10 Ramesh Vinayak, ‘Nasty Surprise,’ *India Today International*, 31 May 1999, p. 20.

11 Manoj Joshi and Harinder Baweja, ‘Blasting Peace,’ *India Today*, 7 June 1999, pp. 12–17.

12 Saba Naqvi Bhaumik, ‘The Dove at War,’ *India Today*, 12 July 1999, pp. 26–27.

13 V.P. Malik, ‘Kargil: Where Defence Met Diplomacy,’ *Daily Times* (Lahore), 26 July 2002.

14 The Kargil Review Committee also concluded that the intrusion came as a surprise to New Delhi. See Government of India, National Security Council Secretariat, *From Surprise to Reckoning: The Kargil Review Committee Report* (New Delhi: Sage Publication Pvt. Ltd, 2000).

15 For example, Indian Defence Minister George Fernandes said that the intruders would be pushed out in 48 hours. See, 'Infiltration Will be Pushed Out in 48 Hours,' *Daily Excelsior*, 17 May 1999.

16 'IAF Bombs Militants' Posts,' *The Hindu*, 27 May 1999.

17 Suba Chandran, 'Limited War with Pakistan: Will It Secure India's Interests?,' ACDIS Occasional Paper, University of Illinois at Urbana-Champaign, August 2004, p. 21.

18 'We Can Cross the LoC: If Needed,' *The Hindu*, 24 June 1999.

19 'Pakistan Warns India,' *The Statesman*, 27 May 1999.

20 Government of India, *From Surprise to Reckoning: The Kargil Review Committee Report*, p. 77.

21 V.P. Malik, 'Kargil: Where Defence Met Diplomacy,' *Daily Times* (Lahore), 26 July 2002.

22 Raj Chengappa, 'Face-Saving Retreat,' *India Today*, 19 July, 1999. Available at <http://www.india-today.com/itoday/19071999/cover.html> [accessed 25 August 2010].

23 Raj Chengappa, *Weapons of Peace: The Secret Story of India's Quest to be a Nuclear Power* (New Delhi: HarperCollins, 2000), p. 437.

24 'India, Pak Discuss Steps to Ease Tension along the Line of Control,' *The Hindu*, 27 July 1999.

25 General V.P. Malik, *Kargil: From Surprise to Victory* (New Delhi: HarperCollins, 2006), pp. 146-7.

26 'Sharif Warns of More Kargil-like Situations,' *Times of India*, 21 June 1999.

27 Malik, *Kargil: From Surprise to Victory*, p. 148.

28 Strobe Talbott, *Engaging India: Diplomacy, Democracy, and the Bomb* (Washington, DC: Brookings Institution Press, 2004), p. 161.

29 'Musharraf Moved Nuclear Weapons in Kargil War,' *The Nation*, 6 July 2006. Sharif's biography is published in 2006 in Urdu, entitled *Ghadaar Kaun? Nawaz Sharif Ki Kahani, Unki Jubani* (Who is the Traitor? Nawaz Sharif's Story in his own Words), written by senior Pakistani journalist Suhail Warraich.

30 On this issue, see Rodney W. Jones, Michael Krepon and Ziad Haider, eds., *Escalation Control and the Nuclear Option in South Asia* (Washington, DC: Henry L. Stimson Center, 2004).

31 For the American perspective, see Bruce Riedel, *American Diplomacy and the 1999 Kargil Summit at Blair House*, CASI Policy Paper Series, no. 5 (Philadelphia: University of Pennsylvania, 2002).

32 Riedel, *American Diplomacy and the 1999 Kargil Summit at Blair House*, p. 8.

33 John Lancaster, 'US Defused Kashmir Crisis on Brink of War,' *The Washington Post*, 26 July 1999.

34 President Clinton in his autobiography termed the Pakistani action 'Pakistan's wrongful incursion.' See, Bill Clinton, *My Life* (New York: Knopf, 2004), p. 265.

35 Raj Chengappa, 'Face-Saving Retreat,' *India Today*, 19 July 1999. Available at <http://www.india-today.com/itoday/19071999/cover.html> [accessed 25 August 2010].

36 Shakil Shaik, 'Clinton Asks Nawaz, Vajpayee to Defuse Volatile Situation,' *The News*, 5 June 1999.

37 Thomas W. Lippman, 'India Hinted at Attack in Pakistan,' *The Washington Post*, 27 June 1999.

38 Raj Chengappa, 'On High Ground,' *India Today*, 28 June 1999, p. 25.

- 39 Tom Clancy with Tony Zinni and Tony Koltz, *Battle Ready* (New York: G.P. Putnam's Sons, 2004), p. 347.
- 40 John Lancaster, 'US Defused Kashmir Crisis on Brink of War,' *The Washington Post*, 26 July 1999.
- 41 C. Raja Mohan, 'Pak. Must Pull Out Troops,' *The Hindu*, 28 June 1999.
- 42 'Russia Rejects Pakistani Version of Kargil Crisis,' *The Hindu*, 2 July 1999.
- 43 'G-8 Condemns Violation of the LoC,' *The Hindu*, 21 June 1999.
- 44 This was Musharraf's reading of the situation, which was confirmed by Zinni in an interview with Rodney Jones and Joseph McMillan. See Rodney W. Jones and Joseph McMillan, 'The Kargil Crisis: Lessons Learned by the United States,' in Peter R. Lavoy, ed., *Asymmetric Warfare in South Asia: The Causes and Consequences of the Kargil Conflict* (Cambridge: Cambridge University Press, 2009), pp. 252–376.
- 45 Riedel, *American Diplomacy and the 1999 Kargil Summit at Blair House*, p. 12.
- 46 The Clinton–Sharif joint statement noted that 'the current fighting in the Kargil region of Kashmir is dangerous and contains the seeds of a wider conflict.' Hence they agreed that 'concrete steps will be taken for the restoration of the Line of Control in accordance with the Simla Agreement.' The US president also promised that he would take a 'personal interest in encouraging an expeditious resumption and intensification' of the Lahore process. See, 'Press Briefing by Senior Administration Official on President's Meeting with Prime Minister Sharif of Pakistan,' Office of the Press Secretary, The White House, 4 July 1999. Available at: <http://www.fas.org/news/pakistan/1999/990704-pak-wh2.htm>.
- 47 Scott D. Sagan and Kenneth N. Waltz, *The Spread of Nuclear Weapons: A Debate Renewed* (New York and London: W.W. Norton, 2003), p. 107.
- 48 Praful Bidwai, 'US Brokers Kargil Peace but Problems Remain,' *Asia Times*, 7 July 1999.
- 49 Dinshaw Mistry, 'Complexity of Deterrence Among New Nuclear States,' in T.V. Paul, Patrick M. Morgan and James J. Wirtz, eds., *Complex Deterrence: Strategy in the Global Age* (Chicago, IL: The University of Chicago Press, 2009), p. 184.
- 50 'Stern Warning to Pak.,' *The Hindu*, 2 October 2001.
- 51 For a full account of the attack, see Sayantan Chakravarty, 'The Day India Was Targeted,' *India Today*, 24 December 2001, pp. 22–32.
- 52 Harish Khare, 'A Decisive Battle Has to Take Place,' *The Hindu*, 14 December 2001.
- 53 B. Muralidhar Reddy, 'Justify Extradition Request: Pak.,' *The Hindu*, 3 January 2002.
- 54 A.G. Noorani, 'Vajpayee's Pakistan Policy,' *Frontline*, vol. 20, issue 11 (24 May–6 June 2003). Available at: <http://www.hinduonnet.com/fline/fl2011/stories/20030606000907500.htm>.
- 55 Rahul Bedi, 'A Strike Staunched,' *Frontline*, 21 June 2002.
- 56 Praveen Swami, 'A War to End War: The Causes and Outcomes of the 2001–02 India–Pakistan Crisis,' in Sumit Ganguly and S. Paul Kapur, eds., *Nuclear Proliferation in South Asia: Crisis Behaviour and the Bomb* (London: Routledge, 2009), p. 149.
- 57 Swami, 'A War to End War: The Causes and Outcomes of the 2001–2 India–Pakistan Crisis,' p. 150.
- 58 'We Stand By the Govt.: Sonia,' *The Hindu*, 18 May 2002.
- 59 V.K. Sood and Pravin Sawhney, *Operation Parakram: The War Unfinished* (New Delhi: Sage, 2003).
- 60 David E. Sanger with Judith Miller, 'Bush Meets India's Envoy: Fears of Pakistan War Deepen,' *New York Times*, 11 January 2002.

61 For example, following the Kaluchak massacre, the South Asia Bureau within the State Department concluded that war was imminent, but Secretary of State Powell's view was that India's options for going to a war were rather limited and New Delhi was to some extent posturing to put pressure on Islamabad by other countries. He thought that the moves were rather political and both countries were posturing to attract the US to work as 'separator.' He posited that skilful US diplomacy could avert a war in South Asia. Of course, he never discounted the likelihood of a war due to escalation. See Polly Nayak and Michael Krepon, *US Crisis Management in South Asia's Twin Peaks Crisis*, Report 57 (Washington, DC: The Stimson Center, September 2006), p. 32.

62 'US Offers FBI Help,' *The Hindu*, December 15, 2001.

63 Sood and Sawhney, *Operation Parakram*, p. 80.

64 B. Muralidhar Reddy, 'Musharraf Bans Laskhar, Jaish: Invites Vajpayee for Talks,' *The Hindu*, 13 January 2002.

65 Nayak and Krepon, *US Crisis Management in South Asia's Twin Peaks Crisis*, p. 25.

66 Jawed Naqvi, 'Crackdown Signals Easing of Tension: New Delhi Gives List of "Terrorists" to Islamabad,' *Dawn*, 1 January 2002. It is noteworthy that a similar demand by New Delhi earlier went unheeded. See, 'Pakistan Refuses to Take Action Against Laskar,' *Hindustan Times*, 16 December 2001.

67 The reduction of jihadi activities following Musharraf's address was short-lived: torrents of violence returned in May–June.

68 'Dialogue Can't be Kashmir-centric: Powell,' *The Hindu*, 19 January 2002.

69 Kanti Bajpai, 'To War or Not to War: The India–Pakistan Crisis of 2001–2,' in Sumit Ganguly and S. Paul Kapur, eds., *Nuclear Proliferation in South Asia: Crisis Behaviour and the Bomb* (London: Routledge, 2009), p. 175.

70 Rajiv Chandrasekaran and Rama Lakshmi, 'Indian Leaders Talk of War Over Kashmir; No Deadline Set for Pakistan To Move Against Militants,' *The Washington Post*, 24 May, 2002.

71 It is noteworthy that the Bureau concluded during the January peak that New Delhi and Islamabad were not ready for war. See, Nayak and Krepon, *US Crisis Management in South Asia's Twin Peaks Crisis*, p. 31.

72 Thom Shanker and Elizabeth Bumiller, 'Bush Presses Pakistan on Kashmir and Orders Rumsfeld to Region,' *The New York Times*, 31 May 2002.

73 Mubashir Zaidi, 'India on Warpath, Pak Steps Back; Pervez: We Must Stop Infiltration,' *Hindustan Times*, 23 May 2002.

74 'Musharraf's Address to the Nation,' available at: <http://www.pak.gov.pk/public/presidentaddress-27-5-2002.htm>.

75 In the statement an American willingness was expressed to help resolve the 'many underlying issues' that divided India and Pakistan. It was a smart diplomatic move on the part of the Bush administration because, as Chari, Cheema and Cohen note, 'In its wording, the statement could simultaneously be read in New Delhi as an expression of American support against Pakistani-sponsored terrorism and in Islamabad as one of American support for a dialogue with Kashmir,' See, P.R. Chari, Pervaiz Iqbal Cheema and Stephen P. Cohen, *Four Crises and a Peace Process: American Engagement in South Asia* (Washington, DC: Brookings Institution Press, 2007), p. 169.

76 Hasan Akhtar, 'US Assured Pakistan Will Not Begin War: Musharraf, Armitage Hold Talks,' *Dawn*, 8 June 2002.

77 Nayak and Krepon, *US Crisis Management in South Asia's Twin Peaks Crisis*, p. 23.

78 'India Must Exercise Restraint: Powell,' *The Hindu*, 17 December 2001.

79 C. Raja Mohan, 'Diplomacy Precedes Military Response,' *The Hindu*, 15 December 2001.

80 John Cherian, 'A US Role and Agenda,' *Frontline*, vol. 1, issue 11 (25 May–7 June 2002). Available at: <http://www.frontlineonnet.com/fl1911/19110170.htm>.

81 This phenomenon supports Crawford's argument that alignment is a key strategy a major power employs to prevent the outbreak of war, what he calls 'pivotal deterrence.' See Timothy Crawford, *Pivotal Deterrence: Third-Party Statecraft and the Pursuit of Peace* (Ithaca, NY: Cornell University Press, 2003).

82 Rajesh M. Basrur, *Minimum Deterrence and India's Nuclear Security* (Stanford, California: Stanford University Press, 2006), p. 90.

83 John Thornhill, 'Moving Closer to the US: Strategy Capitalises on Post-September 11 Fall-Out,' *The Financial Times*, 23 September 2003.

84 Varun Sahni, 'Explaining India–Pakistan Crises: Beyond the Stability–Instability Paradox,' in Pervaiz Iqbal Cheema and Imtiaz Bokhari, eds., *Arms Race and Nuclear Developments in South Asia* (Islamabad: Islamabad Policy Research Institute, 2004), pp. 138–9.

85 Feroz H. Khan, 'The Independence–Dependence Paradox: Stability Dilemmas in South Asia,' *Arms Control Today*, vol. 33 (October 2003).

# **Chapter 8**

## **Nuclear Proliferation in South Asia and its Impact on Regional Cooperation**

Nishchal Nath Pandey and Bhumitra Chakma

### **Introduction**

South Asia went overtly nuclear when India and Pakistan conducted open nuclear tests in May 1998. It was a spectacular development and left profound, long-term consequences for international relations as well as security of the region. Since then scholars have debated on the impact of this development, particularly on the issue of whether overt nuclearisation has injected a dose of stability in an otherwise unstable region or has added more instability.<sup>1</sup>

How has the open nuclearisation of the region impacted on the prospects for regional cooperation and the activities of the South Asian Association for Regional Cooperation (SAARC)? Two propositions can be made. One, nuclear weapons have made war unthinkable and have made Indo–Pakistani strategic relationship stable, hence it will promote regional cooperation and revamp the activities of SAARC by removing earlier barriers. Second, the overt nuclearisation of India and Pakistan has neither helped to resolve long-standing bilateral disputes of the two countries nor provided each country with a credible deterrent against the other. It has made the region a far more dangerous place. Since the nuclear tests in 1998, the activities of the regional organisation – SAARC – have not improved due to strained bilateral relations between the two largest member states of the region – India and Pakistan.<sup>2</sup> In fact, nuclear capability has not introduced strategic stability; rather, ‘it has induced the concerned countries to feel that they can possibly continue low intensity warfare under cover of their respective nuclear umbrellas as evidenced by Kargil.’<sup>3</sup> Therefore, the open

nuclearisation of the region has had a negative impact on South Asian regional cooperation.

This chapter provides an in-depth analysis of this debate. Looking at the developments of the past 12 years, it appears that regional cooperation has not gained momentum since 1998 and the activities of SAARC have remained basically stalled. In the foreseeable future, there is little reason to be optimistic about a breakthrough in Indo–Pakistani strategic relations that can inject momentum into regional cooperation.

The chapter proceeds in the following manner. In the following part, it provides a brief historical background of South Asian regional cooperation and the evolution of SAARC. In the second part, the chapter adumbrates the nuclear evolution of the region. The third part examines the reactions of SAARC countries to Indo–Pakistani nuclear tests. The fourth part analyses the impact of overt nuclearisation of the region on regional cooperation and the activities of SAARC. In the fifth part, two specific proposals are advanced to revamp regional cooperation. In the Conclusion, key points of the chapter are summarised.

## **Regional Cooperation, SAARC and Its Evolution**

Compared to many other regions of the world, South Asia was very slow to take the initiative to build institutionalised regionalism. Bangladesh took the initiative in the late 1970s to build a regional organisation and eventually the South Asian Association for Regional Cooperation was officially launched in 1985. The inspiration for building such an institution originally stemmed from the success of the European Union (EU) and the Association of Southeast Asian Nations (ASEAN). It adopted a functional, gradual approach to building the institution: it initially started cooperation in economic and non-contentious areas, which in course of time, with spill-over effects, would produce greater cooperation.<sup>4</sup>

Three main objectives were at the core of South Asian regional cooperation:

1. promotion of welfare of the peoples of the region and improvement of the quality of their livelihood;



2. acceleration of economic growth, social progress and cultural development; and
3. creation of an environment in which all can live in dignity and the opportunity for individuals to realise their full potential, which would in turn contribute to collective self-reliance and strengthen regional bonds.

It can safely be stated that SAARC has a long way to go to fulfil these basic objectives enshrined in its Charter.

Formed with great hopes 25 years ago, SAARC was conceived to be the key forum for economic progress and advancement of the region. It is the only regional organisation to date that commands the membership of all regional states. It has gradually created a sense of South Asianness among the people of the region. It is a geographically, culturally, civilisationally integrated area, which with cooperation at the regional level can make swift economic progress. With economic powerhouses such as China, Japan and South Korea as its Observers and with complementary export opportunities, cheap labour and a common culture, South Asia can be an engine of growth in the Asia–Pacific region.

Since its launch, SAARC has gradually expanded its activities in various sectors, including in social, economic, cultural, sports, trade, etc. Recognising the existence of interstate hostility, contentious issues were consciously excluded from the activities of SAARC. There is a debate now on whether this was a prudent move, given that SAARC has not progressed in the way that was expected due to political disputes. It is argued that without addressing contentious political issues, it is difficult to make progress in regional cooperation.<sup>5</sup>

Indeed, the pace of regional cooperation has been sluggish ever since SAARC's inception in 1985 and it has failed to produce much substantive progress in the past quarter of a century. It even faced problems in holding annual summits of heads of states or governments due to political wrangling.<sup>6</sup> It is no secret that certain clearly identifiable historical and geopolitical factors, specifically Indo–Pak hostility, hindered the building of closer cooperation in the areas of free trade, inter-nation connectivity, visa removal, cooperation on joint collaboration against terrorism, etc.

Since the two countries became independent in 1947, India and Pakistan have not been able to normalise their relations. So far, they have fought four

wars (1947–48, 1965, 1971, 1999) and have weathered numerous crises. They still have a number of outstanding disputes including the Kashmir dispute for which they have fought three wars. Sumit Ganguly has dubbed India–Pakistan relations ‘conflict unending.’<sup>7</sup> The strained bilateral relations of India and Pakistan have made regional cooperation a difficult proposition. Indeed, SAARC to date has remained hostage to the Indo–Pakistani politico–strategic disputes.

Other smaller states of the region also have issues with India, ranging from disputes over trade, the environment and water-sharing to refugees and immigration, etc.<sup>8</sup> Furthermore, some states are also fearful of political survival due to India’s overwhelming dominant and central position in the regional system. This has also hindered the growth and progress of SAARC.

By the time the region became overtly nuclear in 1998, SAARC indeed did not make much substantive contribution to the people of the region in terms of economic prosperity and greater security. It was analysed that an uncongenial political and security atmosphere impaired regional cooperation and the progress of SAARC. Hence it was intriguing whether the introduction of nuclear weapons would make matters different for the regional body, which is the focus of this chapter.

## **Nuclearisation of South Asia**

After a prolonged process of clandestine proliferation, India and Pakistan finally declared themselves overt nuclear powers in May 1998. India began a dual-use programme as soon as it became independent.<sup>9</sup> Pakistan launched a peaceful nuclear weapons programme in the mid-1950s. In the 1960s, New Delhi clandestinely started a nuclear explosive project in reaction to China’s first nuclear test in 1964, which eventually culminated in the 1974 Indian nuclear explosion. Pakistan adopted a ‘nuclear option’ policy in the 1960s and began a clandestine nuclear weapons programme in 1972.<sup>10</sup> Both India and Pakistan did not sign the Nuclear Non-Proliferation Treaty (NPT) concluded in 1968.

From the 1970s onward both countries consistently pursued their clandestine nuclear weapons programme to acquire the capability to build nuclear weapons. India conducted its first nuclear explosion in 1974,

although at that time it claimed it to be a 'peaceful' nuclear explosion. Pakistan expedited its clandestine activities following India's nuclear explosion and worked on both the uranium enrichment and plutonium reprocessing routes to build a nuclear bomb as quickly as possible.

In the 1980s, both New Delhi and Islamabad continued their clandestine nuclear weapons programme. By the mid-1980s, Pakistan supposedly acquired the capability to build nuclear weapons. In an interview following the Brasstacks crisis in 1986–87, Pakistan's president, Zia-ul Haq, claimed that Pakistan could build a nuclear bomb if it wanted, but it did not intend to build one.<sup>11</sup> By the late 1980s, Indian Prime Minister Rajiv Gandhi authorised his country's nuclear scientists to produce all the components of a nuclear weapon.

Following the end of the Cold War, both India and Pakistan, from their own perceptual standpoints, became vulnerable and hence became dependent on nuclear weapons for their security. Against such a backdrop, the two states confronted a crisis over the disputed territory of Kashmir in 1990, which had nuclear implications. This increased their reliance on nuclear weapons further in their defence strategies.

In 1995, the Non-Proliferation Treaty was extended for an indefinite period. Neither state joined the conference nor showed any willingness to sign the treaty. In 1996, they both refused to sign the Comprehensive Test Ban Treaty (CTBT) when it was finalised, despite their participation in the negotiations of the treaty. India made preparations for a nuclear test on 15 December 1995; New Delhi perhaps thought to conduct a test before the door of testing was closed by the conclusion of the CTBT. Reportedly, Islamabad also took tentative preparations to match any test by India. Eventually of course New Delhi did not go ahead with its test plan.

Finally on 11 and 13 May 1998, India conducted five nuclear tests and declared to the world the rise of a new nuclear power. Two weeks later, on 28 and 30 May, Pakistan responded in a 'tit-for-tat' fashion by carrying out six nuclear explosions. The history of the nuclear weapons programmes of India and Pakistan demonstrates that there was an element of competition in the building of their nuclear arsenals. Indeed, their security rivalry played a key role in their move towards the nuclear path.

## **Nuclear Tests and the Reactions of SAARC and Regional Countries**

Soon after the Indian tests on 11 and 13 May, China expressed serious concern, saying they would damage world peace and regional stability. The Chinese foreign ministry said the tests ran counter to progress that had been made in reducing nuclear arms. Foreign Ministry spokesman Zhu Bang-Zao stated: 'India's conducting of nuclear test runs against the international trend and is detrimental to the peace and stability of the South-Asian region.'<sup>12</sup>

Prime Minister of Pakistan Nawaz Sharif reacted to the Indian tests with a promise to take 'Pakistan's own decision on the steps to be taken towards its sovereignty and defence' and added that it 'reserves the right to take all appropriate measures for its security.'<sup>13</sup> Despite warnings from the international community, including enormous pressure from the US President, Bill Clinton, Pakistan went ahead with its tests. During the press conference following the tests, Prime Minister Nawaz Sharif emphatically said 'today we've paid them back.' Reacting to the Pakistani testing the very same day the then Indian Prime Minister, Atal Behari Vajpayee, stated: 'Pakistan's action vindicated India's decision to conduct tests of its own.'<sup>14</sup>

In a tit for tat game to outsmart each other, both India and Pakistan not only decided to arm themselves with the most lethal and devastating weapon systems, but they also equipped themselves with ballistic and cruise missiles capable of carrying nuclear warheads. Alarmed at the prospects of a dangerous South Asia, Bangladesh pointed out that a nuclear arms race was not desirable in the interests of the poor people of South Asia. Bangladesh's Minister of State for Foreign Affairs, Abul Hasan Chowdhury Kaiser, said: 'We should all move forward for peace in the entire region. Poverty, illiteracy and human resource development warrant more attention, and we still hope that all countries will pay attention to this.'<sup>15</sup>

Nepal, a signatory to both the CTBT and the NPT, expressed its concern but hoped that the tests would not start an arms race in the region. Similarly, Sri Lanka was deeply concerned with the missile and nuclear testing and believed that 'the entire international community should continue its efforts to achieve global nuclear disarmament leading to the total elimination of

nuclear weapons without which peace and international security will continue to be in constant jeopardy.’<sup>16</sup>

Following the tests, Thimpu became more worried fearing that they would enhance Sino–Indian strategic rivalry and that would have a negative impact on the security of Bhutan. A cause of worry was the fact of China’s deep involvement with Pakistan’s nuclear programme – China, contributed to the country’s nuclear testing. Sino–Pak collusion in the nuclear field could lead to India putting a greater effort into building an ambitious nuclear force. The building of a bigger nuclear force by India could prompt China to build a more sophisticated nuclear force to maintain its relative superiority vis-à-vis India, thereby increasing the likelihood of a spiralling arms race between the two Asian giants.<sup>17</sup> This possibility might have prompted rapid and frightening reactions from Bhutan. Thimpu’s fear, as an analyst points out, is that ‘the strategic interests of both China and India in South Asia, within which Bhutan is sensitively located, revolve around India and China’s wish to mutually contain each other.’<sup>18</sup>

Once the ‘nuclear genie’ is out in South Asia, it ‘has implications for other regional countries since the radiation effects of a nuclear conflict would assuredly ravage the entire subcontinent.’<sup>19</sup> The perceptions of regional states of the Indo–Pakistani nuclear tests were of concern rather than assurance. The reactions of South Asian states highlight that the overt nuclearisation of the region has added a new twist to the already precarious regional environment. By implication, this means that it might have a negative impact on regional cooperation and the activities of SAARC. As is noted above, cooperation among regional countries had suffered due to the strained Indo–Pakistani relationship. Therefore, a nuclear environment, from the standpoint of regional countries, could not be conducive to regional cooperation.

The implications of such a common perception among regional states could prove significant in terms of regional cooperation in the years to come. Looking back at the developments of the past 10 years, there are reasons to be concerned about the state of regional security today and its future prospects. For one thing, the Indian government grossly misjudged Pakistan’s willingness and preparedness for a nuclear test when they themselves tested. Following the nuclear tests, both countries began to integrate nuclear weapons with their armies and began to develop their nuclear arsenals vigorously,<sup>20</sup> thereby moving another step closer to

potential nuclear danger. Given that the India–Pakistan bilateral relationship is not on the mend, it is reasonable to assume that regional security will not improve in the near to medium term. The region, conversely, is likely to move towards a more precarious security environment, which is bound to have a negative impact on regional cooperation.

## **Effects on SAARC**

A vigorous debate began soon after the Indo–Pakistani nuclear tests regarding the consequences of the open nuclearisation of the region, which continues even today. Proliferation optimists argue that nuclear weapons have helped to stabilise an otherwise volatile region and will prevent India and Pakistan from the drift to any full-scale war.<sup>21</sup> Pessimists, on the other hand, argue that the introduction of nuclear weapons has added a new twist in the precarious military relations between India and Pakistan and have led the region closer to a possible nuclear catastrophe.<sup>22</sup>

Following the above line of arguments, it is possible to advance two opposing perspectives regarding the impact of nuclearisation on regional cooperation and the dynamics of SAARC. The first relates to the positive impact of nuclear deterrence. Since the dawn of the 1990s, nuclear deterrence between India and Pakistan appears to have worked, as no all-out war broke out, despite India and Pakistan having fought a brief war and weathered a number of major military crises. In 1990, New Delhi and Islamabad weathered a crisis over Kashmir in which nuclear deterrence is thought to have worked. Optimists believe that nuclear deterrence was consolidated following the open nuclear tests in May 1998. Although those nuclear tests represented a heightened stage of their security competition, the strategic confidence gained from the tests might have induced the two states to cultivate greater bilateral and regional cooperation. As Sridharan argues, the May 1998 nuclear tests have created scope for greater economic cooperation between India and Pakistan with spill-over effects in the security realm.<sup>23</sup> The Indo–Pakistani reconciliation and peace process that was launched in the aftermath of the 1998 tests was thought to have generated positive impact on regional relations, specifically between India and Pakistan. Although the peace process was derailed in the wake of the 2008 Mumbai terrorist attacks and they are yet to get back to the dialogue

process, it is argued that they have no other alternative but to start reconciliation due to their possession of nuclear weapons.

On the other hand, critics point out that the introduction of nuclear weapons into the arsenals of India and Pakistan has failed to stabilise their bilateral relations. Nuclear weapons, contrarily, have led them to undertake destabilising acts. For example, Pakistan undertook the Kargil mission in 1999 bolstered by its possession of nuclear weapons.<sup>24</sup> In other words, nuclear weapons have led to a more precarious regional environment, which has negatively affected prospects of regional cooperation. It appears that there is an apparent correlation between the deterioration of the regional security environment stemming from the introduction of nuclear weapons and the lack of progress in regional cooperation.

Following the nuclear tests, India and Pakistan fought a brief war in 1999 over the disputed territory of Kashmir. The war strained bilateral relations between the two countries. Indian Prime Minister Atal Behari Vajpayee was dismayed, given that he took a personal initiative to mend fences with the Pakistanis by taking the Lahore initiative. He travelled to Lahore in February 1999 to meet with his Pakistani counterpart Nawaz Sharif. This war left negative consequences for the activities of SAARC.

Relations between the two countries became further strained when India and Pakistan went through a ten month-long military stand-off in 2001–02 following a terrorist attack on the Indian Parliament by Pakistan-based terrorist group Laskar-e-Toiba. Although another dialogue process was begun in 2004 and continued for about five years, it went bust when again Laskar-e-Toiba carried out terrorist attacks on India's financial capital, Mumbai, in November 2008. The reconciliation process was yet to resume at the beginning of 2011. The impact of this state of Indo–Pakistani relationships did not help to introduce dynamism into the activities of SAARC, as an overview of the activities of SAARC in the ensuing years following the nuclear tests makes clear.

Since the launching of SAARC, its activities have traditionally remained handicapped by political disputes among regional countries, although the items for action on its agenda have increased over the years. While disputes between India and its small neighbours have played a role, they possibly could have been overcome. What most hindered the prospects of regional cooperation were the Indo–Pakistani disputes and relentless strategic rivalry. One of the most important initiatives SAARC has undertaken thus

far is the South Asian Free Trade Agreement (SAFTA), concluded in April 1993. A gradual, step-by-step approach was undertaken for its implementation, with concessions to the smaller states of the region. Under the terms of the agreement, tariff reductions, rules of origin, safeguards, institutional structures and dispute settlement are to be sorted out by various committees. It also calls for harmonisation of standards and customs procedures, mutual recognition of test results and transport infrastructure cooperation, along with reduction in import duties to 20 per cent from 2006. SAFTA came into force in 2006 and is to be fully implemented by the end of 2016. Although one of the most important initiatives of SAARC, it remains to be seen how far India and Pakistan can remain committed to its implementation in the remaining years until 2016. Already they have not shown full commitment owing to their bilateral disputes and strategic rivalry. Without their full commitment, SAFTA will remain meaningless and its goals will remain unfulfilled.

Prior to 1947, the region was well connected and better integrated. In the last 60 years, although the South Asian countries have significantly opened up trade with the rest of the world, they are yet to fully open their markets to each other. Protective policies, poor infrastructure, closed borders and corruption have hindered the growth of trade within the region. SAFTA can be an important avenue to reintegrate the region and can generate economic growth. But political disputes between India and Pakistan have put up substantive barriers to this novel goal. The Pakistani government does not want to fully implement SAFTA because it thinks that intensified economic relationships might reduce pressure on India to solve the Kashmir issue.<sup>25</sup> It ratified SAFTA in February 2006, raising hopes that it might help to mend fences and that trade barriers with India might come down. SAFTA is supposed to make Most-Favoured Nation (MFN) treatment automatic and there was an expectation that Pakistan's previous refusal to give MFN treatment to India would be lifted. Unfortunately, that has not happened and whereas SAFTA is supposed to be based on a negative list, Pakistan has provided a positive list in the case of India.

It is noteworthy that bilateral trade between India and Pakistan, which stood at US\$180 million in 1996, increased to US\$537 million in 2004, despite considerable obstacles and regressive government policies. But this figure could have been much higher if India and Pakistan had been fully committed. The key factor behind Pakistani policy is mutual suspicion and



mistrust and Indo–Pakistani strategic rivalry. This clearly highlights the fact that nuclear weapons have failed to remove earlier mistrust and build strategic confidence in Pakistan to foster new relationships based on nuclear weapons. Concomitantly, they have not made a positive impact on regional cooperation.

Similarly India has been quite selective in giving trade concessions to smaller SAARC members and has not been fully committed to building trade relations with Pakistan. The hope is that eventually India and Pakistan can move forward according to the plan envisaged by SAFTA to set up a Free Trade Area, which would then facilitate the establishment of a united Customs Union and a Free Market, where labour and capital can freely move, eventually leading to an Economic Union with a common currency.

Experts have pointed out that ‘if South Asia’s trade is to be integrated, it requires the integration of the infrastructure of the region. This would point to cooperation in the areas of energy, as well as the strengthening of transportation, transit and communications links across the region.’<sup>26</sup> This is another area which has become a victim of Indo–Pak hostility. As was mentioned earlier, South Asian countries were better linked prior to 1947 in terms of roads and railways connectivity and their economies had no barriers to the movement of goods. The train service connecting Jaipur with Karachi across the Thar Desert was suspended when it was bombed during the 1965 war. It is perhaps reasonable to assert that the partition of India compressed regional land and railway links. The efforts to re-establish the previous connectivity were hindered by political disputes and they became even harder following the nuclearisation of the region in 1998.

It makes better economic sense for India to use the Bangladesh territory for supplying goods and essential services to the Northeastern states and for Bangladesh to use Indian territory for trade with landlocked Nepal and Bhutan. Similarly, Nepal and Bhutan, being land-locked, have no alternative but to use Indian territory for trade and international outlet. Currently, Nepal–Bangladesh trade through the Kakarbhitta–Fulbari corridor has not been optimised, as the customs on the Indian side of the border are open only for 4 hours a day. The Indian security establishment is hypersensitive about the safety of the Siliguri corridor and as a result each truck has to be loaded and unloaded, which increases the prices of goods. The Indians do this because they suspect that the Pakistan intelligence service – the Inter-Services Intelligence Directorate (ISI) – is involved in

clandestinely fuelling insurgencies in Northeast India.<sup>27</sup> Furthermore, New Delhi also complains that Islamabad instigates the smaller countries of the region to act against India. It is the psyche of enduring suspicion as regards Pakistan's involvement in smaller countries that makes the Indian security establishment sensitive and reluctant to loosen control on its borders.

If mutual suspicion among SAARC countries can be overcome, a transport network can easily be built, which in turn can facilitate the growth of intra-regional trade. A subcontinental transport network can facilitate uninterrupted travel from Peshawar to Agartala and from Kathmandu to Colombo. The Lahore–Delhi bus service was operational during the 1999 Kargil conflict, however it was suspended in the wake of the 2001–02 Indo–Pakistani military stand-off, which resulted from the terrorist attack on the Indian parliament by Pakistan-based terrorists. The service only resumed on 16 July 2003. Similarly, the bus service connecting Poonch (India) with Rawalkote (Pakistan) was also launched on 20 June 2006. Those episodes, while highlighting the compelling necessity of maintaining transport links, at the same time manifest the challenges of promoting regional cooperation through building transport infrastructure.

The Asian Highway project is particularly noteworthy in the context of building a transport network for regional economic cooperation. It is immensely important because if successful it will contribute tremendously to the economic growth of the region, not only by building a transport network in South Asia but also by linking the region with the dynamic economies of China and Southeast Asia. It is a grand road project to connect various regions across the continent and has identified the following road linkages:

1. Border of Myanmar–Teknab–Cox's Bazaar–Chittagong–Dhaka–Mongla;
2. Lanzhou–Golmud–Lhasa–Kodari–Kathmandu–Narayanghat–Birgunj–Muzzaffarpur–Barauli;
3. Agra–Gwalior–Nagpur–Hyderabad–Madurai–Dhanushkoti ferry–Anuradhapura–Dambulla–Kandy–Colombo–Galle–Matara;
4. Khagarpur–Nagpur–Dhule;
5. Peshawar–Dara Ismailkhan–Quetta.<sup>28</sup>

The scheme also envisages:

a grand axis comprising the western seaboard linking Maldives–Mumbai–Karachi–Iran–Gulf region, the other grand axis comprising the eastern seaboard linking the South Asian Growth Quadrangle region to Myanmar–Thailand–Indochina and the third comprising the southern seaboard linking Vishakapatnam–Chennai–Colombo region. The northern region could comprise the grand landmass of the Hindukush–Himalayan region stretching from Delhi–Islamabad–Kashmir–Kabul to link up with Central Asia.<sup>29</sup>

How ambitiously visionary the scheme may be, it has remained stalled due to the complexity of the region's strategic politics, which also involves China. India has remained concerned whether Sino–Pakistani collaboration would put it in a disadvantageous position. Similarly, Pakistan is over-sensitive as to whether any initiative would lead to India increasing its dominant position. Put simply, they are oblivious of the absolute gains that the Asian Highway project can bring to them; they are still used to calculating gains in relative terms. It seems that nuclear weapons have not changed their calculations of gains from bilateral or regional cooperation.

SAARC has correctly identified energy, transport and communications as important areas for cooperation and has put them at the top of its agenda of activities. Energy is indeed considered one of the most important areas for the economic growth of the region. A common energy grid across the region is even envisaged. On the positive side, India, Bangladesh and Myanmar have agreed in principle recently to cooperate in a gas exploration and overland pipeline project that would send gas to India. India is power-hungry and Nepal has an abundance of hydropower resources; if they can be harnessed, all states of the region can benefit. Iran proposed the export of natural gas to India in 1993 and a pipeline was proposed linking Iran–Pakistan–India. The Iranian government proposed the construction of a pipeline from its South Pars fields in the Persian Gulf to Pakistan's major cities of Karachi and Multan and then further, to Delhi, India.<sup>30</sup> After a meeting with the Iranian president in New York in September 2000, Pakistan's president, Musharraf, expressed Islamabad's willingness to participate in the venture and promoted the idea as an example of regional cooperation. Subsequently the pipeline project remained stalled for years due to Indo–Pakistani disagreement. Eventually Pakistan and Iran concluded an agreement which excluded India.

The above discussion highlights the fact that the post-test nuclear environment has brought little change in the style and substance of regional cooperation. It is business as usual, which in some contexts is negative. It is a truism that in the past the dynamism of SAARC remained hostage to the

strained bilateral relations of India and Pakistan. Nuclear weapons have not introduced a change for the better in their bilateral relations. This state of Indo–Pak bilateral relationship has seriously impaired the growth of regional cooperation in the post-test era.

## **Seizing the Opportunity**

Following the nuclear tests, the course of regional cooperation could have been different. It is noteworthy that Pakistan began a nuclear weapons programme in 1972 to safeguard its political survival against India's traditional conventional and looming nuclear threat. Through building nuclear weapons and testing them openly, Pakistan achieved adequate strategic confidence and the ability to counter India. Nuclear weapons brought a kind of strategic balance between the two countries. Therefore, there was scope for Pakistan to change its approach towards regional cooperation. On the other hand, given a nuclear environment, India could also have changed its approach towards regional cooperation and could have expanded at regional level the economic liberalisation policies that it was pursuing at home. Unfortunately, both India and Pakistan stuck to their traditional zero-sum game mentality rather than appreciating new opportunities that were created by nuclear weapons.

Given the above, we make two specific recommendations to revamp regional cooperation and bring dynamics into the activities of SAARC.

First, it is important to strengthen the SAARC Secretariat, which is located in Kathmandu. One of the key problems of SAARC as a regional grouping is its restrictive Charter, which warrants unanimity before arriving at any decision at all levels. This has led to a very weak Secretariat, unlike in the EU or ASEAN. For instance, after the overt nuclear tests of India and Pakistan, the SAARC Secretariat could not take a common position to express its reaction and eventually no official reaction actually came out over the issue. The 10th SAARC Summit held in Colombo on 31 July 1998 did not even mention the nuclear tests, but rather strangely stated:

The NPT and the CTBT, to which some SAARC members were signatories, had not led to any progress towards nuclear disarmament nor prevented proliferation [and] the Leaders underscored their commitment to the complete elimination of nuclear weapons and the need for promoting nuclear disarmament on a universal basis, under effective international control.<sup>31</sup>

The same thing was repeated after the terrorist attacks in Mumbai in November 2008. No official statement was made by the SAARC Secretariat, even after the whole world, including Pakistan, had condemned the attacks in the strongest possible terms.

Second, there are no mechanisms within the organisation to promote formal and informal political consultations and security dialogues. It is very unlike other successful regional organisations such as ASEAN. Without addressing political and security issues head on, it is less likely that SAARC can be an effective regional institution. To achieve this will require strong political will and commitment from member states. Without sufficient political will for drastic alterations in the current modus operandi of SAARC, the regional grouping is bound to remain a lame duck without any teeth to address pressing issues.

On security issues, SAARC can follow in the footsteps of ASEAN and other regional groupings. For the security dialogue, for example, the ASEAN Regional Forum (ARF) can provide a framework for SAARC. Also, SAARC can follow the line of confidence- and security-building measures that have been devised by the Conference on Security and Cooperation in Europe (CSCE). Confidence-building measures between India and Pakistan have become even more important following the two countries' overt nuclearisation. And SAARC can provide the platform for these.

With regard to terrorism, despite definitional and practical complexity, SAARC has made some progress. SAARC leaders unanimously agreed at the 11th summit held in Kathmandu that it is a 'challenge to all states and humanity, and cannot be justified on ideological, political, religious or on any other ground.' A common perception of such a difficult and potentially contentious issue could form a basis for broader cooperation in common security areas.

In the longer run, it might even be possible to take gradual steps to move the region towards denuclearisation by learning from the experiences of other regional groupings, particularly ASEAN. The Southeast Asian Nuclear-Weapon-Free Zone Treaty (SEANWFZ) was signed in 1995 in Bangkok. It entered into force on 28 March 1997. It highlights the fact that security can be gained without nuclear weapons. Given that South Asian states confront a severe threat from terrorism, denuclearisation should be given serious consideration. As long as nuclear weapons and fissile

materials exist in the region, the possibility of nuclear terrorism cannot be ruled out. To avert such a possibility, denuclearisation of the region provides the best way forward.

## **Conclusion**

Two contending propositions are tested in this chapter. One is that the tests of nuclear weapons by India and Pakistan created the opportunity for genuine and deeper regional cooperation in South Asia as a result of the strategic stability that was to be gained from Indo–Pakistani nuclear deterrence. The second is that the nuclear tests of India and Pakistan and the open nuclearisation of the region have had negative consequences for regional cooperation due to the strategic instability that Indo–Pakistani nuclear weapons produced.

As the analysis of this chapter highlights, the second proposition validates the experience of the past decade. SAARC clearly did not demonstrate any renewed vigour in its activities following the nuclear tests. The open introduction of nuclear weapons into the arsenals of India and Pakistan did not result in stable Indo–Pakistani strategic relationships in the ensuing years, rather, the cycle of crisis increased; SAARC too remained hostage to the strained bilateral relations and strategic rivalry.

As for the future, there is no optimistic sign that India–Pakistan bilateral relations will improve in the foreseeable future, given that a number of bilateral disputes have remained unresolved. The key issue, for Pakistan, is the Kashmir dispute, whose resolution is a precondition for improving bilateral relations with India. It is reasonable to assume that it is less likely that this issue will be resolved in the short to medium term. Furthermore, dispute over the Siachen Glacier, Sir Creek and water-sharing, etc. continue to bedevil their relations. In the meantime, terrorism has emerged as a key area of friction between the two traditionally hostile nations. The terrorist attacks on Mumbai by a Pakistan-based terrorist group have derailed the composite dialogue process that began in January 2003. The relationship between India and Pakistan, as of early 2011, remains frozen and it is uncertain when the dialogue process will resume. Such a state of affairs in Indo-Pakistani relations will take its toll on regional cooperation. SAARC will continue to struggle to be relevant in the years to come.

- 1 For a discussion on this, see Sumit Ganguly and S. Paul Kapur, *India, Pakistan and the Bomb: Debating Nuclear Stability in South Asia* (New York: Columbia University Press, 2010).
- 2 Indeed, SAARC in the tests' aftermath was languishing in its activities. See Dushni Weerakoon, 'Does SAFTA Have a Future?', *Economic and Political Weekly*, vol. 36, no. 34 (25–31 August 2001).
- 3 Al Masud Hasanuzzaman, 'Political and Security Roles of SAARC in the 21st Century: A Bangladesh Perspective,' in Dipankar Banerjee, ed., *SAARC in the 21st Century: Towards a Cooperative Future* (Regional Centre for Strategic Studies, Colombo and India Research Press, 2002), p. 65.
- 4 Emajuddin Ahmed, *SARC: Seeds of Harmony* (Dhaka: University Press Limited, 1985). Also, see Ananya Mukherjee Reed, 'Regionalization in South Asia; They and Praxis,' *Pacific Affairs*, vol. 70, no. 2 (Summer 1997), pp. 235–51; Kishore C. Dash, 'The Political Economy of Regional Cooperation in South Asia,' *Pacific Affairs*, vol. 69, no. 2 (Summer 1996), pp. 185–209.
- 5 Discussion with Akmal Hussain, an expert on SAARC and a professor of International Relations at Dhaka University, Bangladesh.
- 6 For instance the 13th SAARC Summit in Dhaka was postponed at the last minute on 2 Feb. 2005 by India citing the internal security situation in Bangladesh and the political developments in Nepal. The then Indian Foreign Secretary, Shyam Saran, categorically mentioned the names of these two member states, although the SAARC Charter excludes bilateral and contentious issues from deliberations on all SAARC forums at all levels.
- 7 Sumit Ganguly, *Conflict Unending: India–Pakistan Tensions Since 1947* (New York: Columbia University Press, 2002).
- 8 On this, see Bhumitra Chakma, 'South Asia's Realist Fascination and the Alternatives,' *Contemporary Security Policy*, vol. 30, no. 3 (December 2009), pp. 395–420.
- 9 On this point, see [Chapter 6](#) of this volume.
- 10 Bhumitra Chakma, 'Road to Chagai: Pakistan's Nuclear Programme, Its Sources and Motivations,' *Modern Asian Studies*, vol. 36, no. 4 (October 2002), pp. 871–912.
- 11 William R. Doerner and Ross H. Munro, 'Pakistan Knocking at the Nuclear Door,' *Time* (US edition), vol. 129, no. 13 (30 March 1987).
- 12 'World Concern at Nuclear Test,' BBC News online. Available at [http://news.bbc.co.uk/1/hi/events/asia\\_nuclear\\_crisis/archive/92844.stm](http://news.bbc.co.uk/1/hi/events/asia_nuclear_crisis/archive/92844.stm) [accessed 3 August 2009].
- 13 'India Explodes Nuclear Controversy.' Available at [http://news.bbc.co.uk/onthisday/hi/dates/stories/may/11/newsid\\_3664000/3664259.stm](http://news.bbc.co.uk/onthisday/hi/dates/stories/may/11/newsid_3664000/3664259.stm) [accessed 4 August 2009].
- 14 'Global Concerns over Pakistani Nuclear Arsenal.' Available at <http://www.chowrangi.com/global-concerns-over-pakistani-nuclear-arsenal.html> [accessed 3 August 2009].
- 15 For a Bangladesh perspective on the nuclearisation of South Asia, see A.K.M. Abdus Sabur, ed., *Nuclearisation of South Asia: Challenges and Opportunities for Bangladesh*, biiss paper 17 (Dhaka: Bangladesh Institute of International and Strategic Studies, 1998).
- 16 Waruna Karunatilake, 'On the Side of Caution,' *Outlook*, 1 June 1998.
- 17 Richard D. Fisher and John T. Dori, 'The Strategic Implications of China's Nuclear Aid to Pakistan,' *Executive Memorandum* no. 532, Heritage Foundation, 16 June 1998.
- 18 Karma Ura, 'Security in South Asia: A Bhutanese Perspective,' in *Security in South Asia* (Institute of Foreign Affairs, 2001), p. 35.
- 19 P.R. Chari, 'Security in South Asia: Indian Perspective,' in *Security in South Asia*, Policy Study Series II (Kathmandu: Institute of Foreign Affairs, 2001), p. 44.

- 20 On post-tests nuclear force-building by India and Pakistan, see [chapters 2 and 3](#) of this volume.
- 21 Michael Quinlan, 'India–Pakistan Deterrence Revisited,' *Survival*, vol. 47, no. 3 (2005), pp. 103–16. John Arquilla, 'Nuclear Weapons in South Asia: More May Be Manageable,' *Comparative Strategy*, vol. 16, no. 1 (1997), pp. 13–31; Sumit Ganguly, 'Nuclear Stability in South Asia,' *International Security*, vol. 33, no. 2 (2008), pp. 45–70. Sumit Ganguly and Devin T. Hagerty, *Fearful Symmetry: India and Pakistan Crises in the Shadow of Nuclear Weapons* (Seattle: University of Washington Press, 2005).
- 22 Scott Sagan, 'Perils of Proliferation in South Asia,' *Asian Survey*, vol. 41, no. 6 (2001), pp. 1064–86; Mario E. Carranza, 'Avoiding Nuclear Catastrophe: Arms Control after the 2002 India–Pakistan Crisis,' *International Politics*, vol. 40, no. 3 (2003), pp. 313–39; S. Paul Kapur, 'Ten Years of Instability in a Nuclear South Asia,' *International Security*, vol. 33, no. 2 (2008), pp. 71–94; Zia Mian and M.V. Ramana, 'Going MAD: Ten Years of the Bomb in South Asia,' *Economic and Political Weekly*, vol. 43, no. 26/27 (28 June–5 July 2008), pp. 201–208.
- 23 E. Sridharan, 'Improving India–Pakistan Relations: International Relations Theory, Nuclear Deterrence and Possibilities for Economic Cooperation,' *Contemporary South Asia*, vol. 14, no. 3 (September 2005), p. 322.
- 24 S. Paul Kapur, 'India and Pakistan's Unstable Peace: Why Nuclear South Asia is not Like Cold War Europe,' *International Security*, vol. 30, no. 2 (Fall 2005), pp. 127–52.
- 25 Anand Kumar, 'Pakistan and Bangladesh Delay SAFTA Take-off.' Available at [http://www.saag.org/common/uploaded\\_files/paper1891.html](http://www.saag.org/common/uploaded_files/paper1891.html) [accessed 14 August 2009].
- 26 Rehman Sobhan, 'Roadmap for South Asian Cooperation,' *South Asian Journal*, October–December 2004, p. 8.
- 27 A case of arms smuggling in a court in Bangladesh implicates the ISI in the transfer of arms to insurgent groups in India's Northeast region through Bangladesh. See, 'Liakat Tells the Same Story Too,' *The Daily Star* (Dhaka), 1 June 2009.
- 28 For more exposition on the Asian Highway Project, see <http://www.unescap.org/TTDW/index.asp?MenuName=AsianHighway>.
- 29 Madhukar S.J.B. Rana, 'Rethinking South Asia.' Available at <http://www.ifa.org.np/article/article5.php> [accessed 9 July 2009].
- 30 Shamila N. Chaudhury, 'Iran to India Natural Gas Pipeline: Implications for Conflict Resolution and Regionalism in India, Iran and Pakistan.' Available at <http://www1.american.edu/TED/iranpipeline.htm> [accessed 1 August 2009].
- 31 See, 10th SAARC Summit Declaration. Available at <http://www.saarc-sec.org/?id=56&t=4#INTERNATIONAL%20POLITICAL%20DEVELOPMENTS> [accessed 28 July 2009].



**PART IV**  
**Confidence-building and Nuclear Arms Control**

## Chapter 9

# **‘I had gone to Lahore with a message of goodwill but in return we got Kargil’:<sup>1</sup> The Promise and Perils of ‘Leaps of Trust’ in India–Pakistan Relations\***

Nicholas J. Wheeler

### **Introduction**

Just over a decade since India and Pakistan announced their effective entry into the nuclear club by testing the Bomb, the two countries remain locked in a bitter enmity that has characterised their relationship since partition. This enmity has led to three major conventional wars, decades of skirmishing and low-intensity conflict, and the fear since the late 1980s that the next armed conflict between these two powers would lead to the development and use of nuclear weapons. Set against this, so-called ‘proliferation optimists’ have argued that the fear of a nuclear exchange has so concentrated minds that it has played a critical role in reducing the risks of war during the periodic crises that have occurred.<sup>2</sup> Nevertheless, the risk remains that eventually a crisis could spiral out of control, leading the South Asian powers to stumble into the world’s first regional nuclear war.

Against this background of deep-rooted fear and suspicion, it is important to remember that shortly after both powers became nuclear-armed, there was an attempt by one side to overcome the psychology of mutual distrust by undertaking a dramatic conciliatory move. In February 1999, the then Indian Prime Minister Atal Behari Vajpayee made what can be called a ‘leap of trust’ when he met with his Pakistani counterpart at Lahore. The historic symbolism of this visit and the positive interpersonal dynamics between the two leaders made possible the signing of the Lahore

Declaration and a Memorandum of Understanding. These agreements were trumpeted by their architects as ushering in a new era of cooperation in relations between India and Pakistan, especially in the nuclear area. Unfortunately, the hopes for trust briefly glimpsed at Lahore quickly evaporated. Vajpayee's leap was seen as failing when a few months later Pakistani forces infiltrated across the Line of Control (LoC). The ensuing Kargil crisis, named after the place where the infiltration took place, threatened to escalate into a full-scale war between India and Pakistan.

Although there have been no subsequent leaps of trust by either side, it is evident that some degree of trust has been recoverable in the relationship. India and Pakistan renewed discussions over the nuclear issue and Kashmir through the Composite Dialogue that began in 2004. There have been the occasional high-water marks during this process, where trust has grown but progress has been incremental, and where this has occurred it has taken the form of mutually agreed steps. Even here, the problem has been how to insulate the process of cooperation from the conflictual elements in the relationship – most problematically in relation to Kashmir – which all too easily have come to dominate relations. In a story familiar to theorists of the security dilemma, each side has viewed the other's behaviour as evidence of hostile intent, while failing to see how its own actions might be seen as threatening. This has created a vicious circle of security competition where each side has looked to its adversary to make the moves that would signal a new cooperative approach.

This is why Vajpayee's attempt to build trust was such an important one. It was one of those rare occasions in international politics when a leader made a highly significant conciliatory move to signal trustworthiness, rather than the normal situation where adversaries expect the other side to make the first move. Vajpayee's leap of trust backfired. But the key question is: was this a case of Vajpayee misplacing trust in the Pakistani leader, Nawaz Sharif, who betrayed him with the Kargil operation? Or, alternatively, was Sharif personally committed to building trust with Vajpayee but frustrated in this by domestic forces at home, crucially the military?

Despite the failure of Vajpayee's leap of trust, it is important to explore what lessons might be learned from this case for any future leaps of trust that Indian and Pakistani decision-makers might make to avoid an escalating nuclear arms competition. This chapter is divided into four parts. First, I briefly explore the concept of a leap of trust and distinguish it from

other approaches to trust-building. I use security dilemma theorising to show how leaps only become possible in a context where decision-makers in adversary relationships understand their hostility as driven by mutual fear and suspicion. Next, the chapter explores how it became possible for Vajpayee to make his extraordinary trust-building move and the role that Sharif played in facilitating the Indian leader's leap. I assume in this part of the chapter that the Pakistani leader was genuinely committed to working with Vajpayee in developing a new cooperative relationship. The third part of the chapter revisits this key assumption. It does so by examining how far Sharif deceived Vajpayee by planning with his generals the attack at Kargil. The final part of the paper considers whether the trust that had made possible the breakthrough at Lahore completely disappeared after Kargil.

## **The Leap of Trust**

The concept of trust has been marginalised in the theory and practice of international relations and I would argue that this has had negative consequences for exploring viable alternatives to a nuclear-armed world. As John Dunn so aptly expressed it, 'The question of whom to trust and how far is as central a question of political life as it is of personal life.'<sup>3</sup> I define successful trust-building in the nuclear context as 'a relationship in which two or more actors, based on mutual interpretations of attitudes and behaviour, believe that they can be relied upon now – and in the future – to desist from exploiting their military capabilities – actual or potential – in ways that will be damaging to them.'<sup>4</sup>

## ***Security Dilemma Dynamics***

The starting point for thinking about the possibilities of building trust between India and Pakistan is recognition of the importance of the concept of the security dilemma. For the purposes of this chapter, I am defining the security dilemma as the inescapable uncertainty that confronts states about the motives and intentions of those that can do them harm.<sup>5</sup> The security dilemma gives rise to what has been called the 'dilemma of interpretation' and the 'dilemma of response.'<sup>6</sup> With regard to the former, those responsible for national security policy have to decide whether another

state's actions – especially its military behaviour – signal that it is acting defensively only (to enhance its security in an uncertain world) or whether it has offensive purposes (seeking to change the status quo to its advantage). Decision-makers then need to determine how to respond. If the dilemma of response is based on misplaced suspicion regarding the motives and intentions of other actors, and decision-makers react in a militarily confrontational manner, then they risk creating a significant level of mutual hostility when none was originally intended by either party; if the response is based on misplaced trust, there is a risk they will be exposed to coercion by those with hostile intentions.

If decision-makers resolve the dilemma of interpretation in favour of the view that they face a state with aggressive motives and intentions, then the logical policy prescription is to maximise their deterrent capabilities and avoid showing any sign of weakness or lack of resolve. Robert Jervis called this approach to national security the 'deterrence model'<sup>7</sup> and I would argue that it has been the dominant frame through which Indian and Pakistani decision-makers have viewed each other's behaviour since partition.

There is an alternative frame available to Indian and Pakistani decision-makers in explaining their hostile interactions, which is to conceive of them as an example of what Jervis called the 'spiral model.' He explained this as a situation where two states (mis)perceive each other as having aggressive intent when each is only acting defensively; the result is a spiral of mutual hostility that might have been avoided through a better understanding of these dynamics. One key factor that inhibits actors from understanding that they might be in a spiral situation is their powerfully ingrained peaceful/defensive self-images. As Jervis wrote, what drives the spiral is the inability of policymakers to 'recognize that one's own actions could be seen as menacing and the concomitant belief that the other's hostility can only be explained by its aggressiveness.'<sup>8</sup>

The British historian Herbert Butterfield was the first to show how governments with peaceful/defensive intent conspired (through their failure to see themselves as others saw them) to provoke other governments to behave in ways that raised the level of mutual insecurity. Butterfield argued that the only escape from these pernicious psychological dynamics was for governments to understand that others were behaving in what appeared to be strategically hostile ways because they were fearful, not because they had aggressive or predatory intentions. But it was exactly this sort of

understanding that Butterfield saw as closed off to policymakers and diplomats. Butterfield wrote, ‘It is the peculiar characteristic of the situation I am describing – *the situation of what I should call Hobbesian fear* – that you yourself may vividly feel the terrible fear that you have of the other party, but you cannot enter into the other man’s counter-fear, or even understand why he should be particularly nervous.’<sup>9</sup>

Butterfield and Jervis’s exploration of the psychological dynamics that fuel distrust might explain the problem that New Delhi and Islamabad have had in empathising with each other’s security fears. Because each has believed that the other knows it is not a threat, neither has been able to recognise how its own policies, which it sees as defensive, might appear highly threatening from the other’s point of view. Here, it is important to realise how far this mutual suspicion and distrust has been fed by bitter historical memories – including the painful legacy of three major wars.

But on what epistemological and methodological grounds should policymakers and analysts privilege a spiral explanation of India–Pakistan interactions over a deterrent one? The problem is that there is no Olympian viewpoint from which observers can make such a definitive claim. Despite Butterfield’s claim that it was only historians who, in retrospect, would be able to make reliable assessments as to whether a situation was explainable in spiral terms, the fact is that history offers no final resting point for resolving these issues. Historians, for example, continue to disagree about the motives and intentions that led to war in 1914 and 1939. This is because the security dilemma – defined as the existential condition of uncertainty regarding the motives and intentions of others – can never be escaped in world politics.

If spiral situations exist because policymakers fail to understand security dilemma dynamics,<sup>10</sup> then it follows that the strongest evidence for the existence of a spiral is for policymakers on one – or preferably both sides – to come to frame their mutual hostility in these terms. Such empathetic responsiveness on the part of leaders to the security concerns of others has been called ‘security dilemma sensibility.’ This has been defined as an:

actor’s intention and capacity to perceive the motives behind, and to show responsiveness towards, the potential complexity of the military intentions of others. In particular, it refers to the ability to understand the role that fear might play in their attitudes and behaviour, including, crucially, the role that one’s own actions may play in provoking that fear.<sup>11</sup>

The intention and capacity to exercise security dilemma sensibility is a rarity because it requires leaders and diplomats to overcome their strongly held peaceful/defensive self-images, as well as to avoid ideological stereotyping of adversaries.

Yet even if leaders understand the importance of exercising security dilemma sensibility, there are important barriers to translating such individual-level empathy into state-level policies that can build trust. The fundamental problem facing policymakers who want to empathise with their adversaries is the worry that their assessment of the other side's motives and intentions as peaceful/defensive might be wrong. Consequently, even governments that consider themselves to be in a spiral situation will be reluctant to make the sort of concessions that might leave them exposed if it turns out that they are facing an aggressor. Thus, Jervis warned that governments with peaceful/defensive intentions should 'design policies that will provide safety' if their trust in others proves mistaken, and that as a result 'even if both sides believe that the other desires only protection, they may find that there is no policy and level of arms that is mutually satisfactory.'<sup>12</sup> The difficulty in following Jervis's advice for a state that wants to signal its trustworthiness is that building trust often requires states to lower their guard and take some risks, the trouble being that the kinds of policies that might reassure an adversary are exactly those that can leave that state in danger of being exploited or coerced if it turns out that the other side is untrustworthy.<sup>13</sup>

The theory of offensive realism is even more pessimistic than Jervis about the possibilities for building trust. In the world of offensive realism, the fact that intentions are 'impossible to divine with 100 per cent certainty' compels states to behave as if they were aggressors and accumulating power is the only way to survive.<sup>14</sup> Thus, even if decision-makers are confident that another state's intentions are currently peaceful, Mearsheimer argues that they still have to choose the offensive option because 'a state's intentions can be benign one day and hostile the next.'<sup>15</sup>

In any discussion of the risks and potential costs that face decision-makers who misplace their trust in others, it is crucial to remember that following the maxim of worst-case thinking also brings with it risks and potential costs. And unless decision-makers are prepared through trust-building initiatives to test whether mutual hostility is the result of security dilemma dynamics, they risk becoming trapped in a situation where

misplaced suspicion leads to unnecessary and dangerous security competition.

### ***Building Trust Step by Step or in One Big Leap***

The risks of a trust-building initiative exposing the truster (the leader or government seeking to build trust) to high costs can be minimised if governments pursue a *graduated* approach to trust-building. This could be a bilateral process where two adversaries develop enough trust in each other to reach agreement on a limited number of Confidence and Security Building Measures (CSBMs) that both will take. However, the problem is how to establish this level of trust in the first place and this is where unilateral moves aimed at building trust become important.

An example of this unilateral approach to generating trust is Charles Osgood's strategy of GRIT (Graduated Reciprocation in Tension Reduction). The basic idea was that if one state could make a series of limited conciliatory moves, this might trigger reciprocation by the other, leading to a virtuous cycle of tension reduction and confidence-building. If reciprocity were forthcoming, Osgood argued that the initiating state should follow up with bolder initiatives; if there were no positive response, he argued that the state pursuing GRIT should carry on making limited unilateral gestures of goodwill in the hope of triggering reciprocation.<sup>16</sup>

The gradualist but unilateral approach to trust-building expects decision-makers to take risks only when they are confident that cooperative moves will not be exploited and/or where there is a clear margin of safety. For this gradualist approach to work, decision-makers in the state with whom an actor is trying to build trust must interpret the action as a genuine conciliatory move. What often blocks decision-makers in adversarial relationships from framing a genuine cooperative move in this way is that they operate with what Ole Holsti once called 'an inherent bad faith model.'<sup>17</sup> This mindset leads decision-makers to operate within a frame which views any apparent conciliatory move by the other side as either a trick to lull it into a false sense of security or as a sign of weakness that is seen as vindicating a policy of negotiating from a position of strength.

There is an alternative to the step-by-step approach which has greater potential to transform the threat perceptions of an adversary. This is the idea of a leader or government making a unilateral 'leap of trust.' Rather than the



dramatic moves that would signal a state's trustworthiness coming *after* trust has been built up, as in the gradualist approach, the aim of a leap is to signal one's potential trustworthiness to an adversary in a frame-breaking conciliatory move.<sup>18</sup>

As I discussed above, orthodox thinking about statecraft traditionally honours playing it safe, yet international history furnishes us with a set of significant cases in which leaders chose (with positive outcomes) to take a leap of trust. A good example of such radical risk-taking was the courageous decision by President Anwar Sadat of Egypt in 1977 to fly to Jerusalem and in a speech before the Knesset publicly to recognise the right of Israel to exist.

Although Sadat's leap eventually led to a spectacular breakthrough in Egypt–Israel relations through the Camp David process, leaps depend for their success on the leadership in the adversary state inviting and/or welcoming the initiative. Leaps, then, are a much more risky undertaking than the graduated approach because they require leaders who are prepared to take risks in order to begin building trust – risks of being rebuffed, exposed and exploited. Nevertheless, as an optimistic reading of Sharif's motives and intentions in the Lahore process illustrates, leaders who positively reciprocate a leaper also expose themselves to political risks from domestic opponents of such trust-building moves. What counts as positive reciprocation will vary from case to case, as will the value to be accorded a particular leap as a trust-building move. Some leaps – as with Vajpayee's decision to go to Lahore – will be primarily symbolic, whereas others might entail a level of concession that sends a very strong signal of an actor's trustworthiness. A leap often depends for its success on the actor to whom the leap is directed responding with an even bigger leap. Leapfrogging of this kind could be a key engine of trust-building in relationships where fear and distrust have previously dominated.

### **‘A Defining Moment in South Asian History’?**

These were the words spoken by Vajpayee as he toasted his arrival at Lahore on the morning of Saturday 20 February 1999. In a highly symbolic step, he had joined the bus at Amritsar which was making its maiden journey on the newly inaugurated bus link between New Delhi and Lahore.

This bus route had been suspended for the last 51 years and its reopening grew out of an agreement between the two countries a few months earlier. How, then, did Vajpayee become only the third Indian Prime Minister to visit Pakistan, and the first to do so by crossing a surface border?<sup>19</sup>

The urgency of establishing a more cooperative relationship was underlined by the dangerous deterioration of relations that took place during May 1998 as India and Pakistan engaged in tit-for-tat nuclear tests. New Delhi's nuclear tests of 11 and 13 May triggered anxiety in Islamabad as to whether India might use its new nuclear position to launch a conventional attack against Pakistan's nuclear facilities, or seek to intimidate Pakistan into making concessions over Kashmir.<sup>20</sup> Such fears were fuelled by the belligerent rhetoric coming out of New Delhi and it came as little surprise when Islamabad followed suit on 28 May by testing its own nuclear devices. Both sides came out of what Sumit Ganguly and Devin Hagerty have called 'The 1998 Nuclear Tests Crisis' with a greater appreciation of the need to find ways of stabilising their nuclear competition and reassuring each other about their nuclear motives and intentions.

The first sign of this new diplomatic engagement was a letter that Vajpayee wrote to Sharif on 14 June in which he reiterated India's commitment to peaceful relations and developing what he called a 'stable structure of cooperation.'<sup>21</sup> Sharif accepted Vajpayee's invitation that they meet for a bilateral discussion the following month at the 10th summit of the South Asian Association for Regional Cooperation (SAARC), which was meeting in Colombo. The meeting was cordial but little progress was made because of what M.L. Sondhi and Prakash Nanda have called Pakistan's 'Kashmir or none' approach. According to them, Sharif described the outcome of the meeting as 'zero.'<sup>22</sup> Certainly, there was little sign of the personal chemistry between the two leaders that was to develop in subsequent months and few would have predicted on the basis of the Colombo meeting the dramatic turn of events that was to follow.

The atmosphere between the two leaders was much warmer during their next meeting in September at the UN General Assembly and this time there were some concrete results. It was at this meeting that India and Pakistan agreed to reopen the bus link between New Delhi and Lahore and to resume the talks at foreign minister level that had been suspended during the last 12 months. Despite the bonhomie between the leaders, the new talks that took place in Islamabad in October and in New Delhi the following month

proved no more successful than the previous ones had been in achieving a breakthrough, crucially on the question of Kashmir. Each side in a familiar and well-worn script blamed the other for any lack of progress.<sup>23</sup> India's Union Home Minister did not help the atmosphere in the November talks when he described Pakistan as a 'terrorist state,' an attitude that summed up the distrust which senior Indian policymakers felt towards the motives and intentions of their nuclear-armed neighbour.<sup>24</sup>

What Indian and Pakistani officials could not overcome in their discussions in late 1998 was their deeply ingrained peaceful/defensive self-images, and this obstacle to building trust was compounded by the bad faith model that each applied to the motives and intentions of the other. Consequently, neither set of officials was able to exercise security dilemma sensibility by entering into the counter-fear of their opposite numbers and understanding how their own actions might appear as threatening.

By contrast with the 'deterrence model' thinking that dominated the Indian Foreign Ministry at this time, it would appear that Vajpayee himself was more open to the possibility that India and Pakistan might be able to overcome the fear and suspicion that had poisoned relations between them. Although there is no direct evidence that he framed the conflictual dynamics between India and Pakistan in terms of a spiral situation, he would not have sought a dialogue with Pakistan if he had believed that such an approach would whet the Pakistani appetite for aggression against India. Moreover, to build trust with the Pakistan Government he was prepared to make a significant conciliatory move that would signal India's peaceful/defensive intentions. What seems to have been important in leading the Indian Prime Minister to believe that there was space for India to put into practice policies of security dilemma sensibility was his conviction that the Pakistani prime minister could be trusted to respond positively to a trust-building initiative. After their positive meeting at the UN in September, the two leaders had begun a series of conversations by phone that encouraged Vajpayee to think that a bold Indian move might lead to significant progress. It is reported that the Prime Minister's Office was exploring 'all options' in the run-up to the Lahore meeting that might enable Vajpayee to decisively signal India's peaceful/defensive intentions.<sup>25</sup>

Vajpayee's confidence that Sharif would prove a reliable partner in building trust between their two countries grew when the Pakistani leader gave him just the opening he had been looking for on 2 February when he

was interviewed by Shekhar Gupta, the editor of *The Indian Express*. Sharif made a plea for him and Vajpayee to meet immediately and begin direct negotiations on the nuclear issue. The Pakistani leader was not noted for his critical reflexivity. However, his explanation of the distrust between India and Pakistan could be interpreted as evidence that he framed the hostility between the two countries in terms of a spiral situation rather than one where Pakistan was reacting to Indian aggressiveness. He said in the interview that ‘It is time the political leadership moved in and set a road map on all this ... We can finalise treaties and agreements that will reduce threats and fears ... The (nuclear) threat ... is all here. So why not resolve the issue between ourselves?’<sup>26</sup> A crucial moment in the interview came when Sharif responded positively to Gupta asking him whether he would welcome Vajpayee travelling on the inaugural bus journey to Lahore.

This was the kind of big idea that would have appealed to Vajpayee’s self-image as a great statesman and man of destiny. India’s Minister of External Affairs, Jaswant Singh, revealed a few days after Sharif’s invitation that his Prime Minister had been pondering this idea for several weeks.<sup>27</sup> It would appear, then, that Gupta’s question to Sharif was aimed at testing the Pakistani leader’s receptivity to this idea. Within 24 hours, Vajpayee had accepted Sharif’s invitation to ride on the bus to Lahore, one of Pakistan’s most historic and symbolic cities. Going to Lahore was a daring move that held out the promise of overcoming decades of distrust.<sup>28</sup> The initial Pakistani response suggested that they also saw Vajpayee’s move as a potential frame-breaking one. The Pakistani Information Minister Mushahid Hussein said, ‘We feel that Vajpayee has taken a very bold initiative ... he has acted in a very non-traditional manner ... he has bypassed the Indian establishment’s rigid and obsolete approach to Pakistan.’<sup>29</sup>

Leaps of trust always involve political risks, not only for those taking the leap who incur the greatest risks, but also for those who invite/welcome such a move. With regard to the latter, Sharif faced strong opposition from the Islamist party Jamaat-I-Islami, from elements within the Pakistani Foreign Ministry and from the military.<sup>30</sup> At the same time, Sharif knew that many ordinary Pakistanis welcomed his efforts at breaking the deadlock in India–Pakistan relations. Jaswant Singh later reflected that ‘Prime Minister Nawaz Sharif displayed courage by agreeing to travel down this road,’<sup>31</sup> suggesting that Indian policymakers understood the risks he was taking by

going to Lahore. Despite being the respected leader of a right-wing Hindu nationalist party, Vajpayee also had to deal with domestic critics who opposed his trust-building moves on the grounds that Pakistan could never be trusted. Nevertheless, Sharif's plea in his interview for a new start in Indo-Pakistani relations helped defuse criticisms from within the ranks of Vajpayee's Bharatiya Janata Party (BJP) and the Indian leader's initiative was applauded by wider Indian public opinion.

The distrust of Pakistan's intentions expressed by Vajpayee's critics contrasted sharply with the atmosphere of trust that flourished between the two leaders during their time together at Lahore. Indian and Pakistani officials had been trying for the past few months to reach agreement on nuclear Confidence and Security Building Measures (CSBMs). However, they had failed to make significant progress, crucially because Pakistan insisted on linking any agreement to progress on Kashmir. The personal chemistry between the two leaders was such that in a meeting which lasted a day and a half, amidst the pomp and splendour of the evening banquet held on the Saturday night in honour of Vajpayee at the Lahore Fort and a civic reception the following afternoon, they were able to cut through the months of diplomatic stalemate and reach agreement on two documents. First the 'Lahore Declaration,' which set out the general principles to regulate India-Pakistan relations in the new nuclear security environment of South Asia; and second, a 'Memorandum of Understanding' signed by the Indian and Pakistani foreign secretaries, in which both sides pledged to keep each other informed of any ballistic missile tests, agreed to continue their moratorium on nuclear testing (except in a situation of supreme national emergency), and work towards an upgrading of communication links, as well as other measures that would reduce the risks of an accidental or unauthorised use of nuclear weapons.<sup>32</sup> The Memorandum has been criticised for the lack of agreement on substantive matters<sup>33</sup> and three analysts described it in 2004 as being 'little more than limited transparency measures.'<sup>34</sup> However, what this assessment overlooked was that both sides committed themselves to setting up working groups to work out the details with a view to reaching a formal treaty by the middle of 1999.

Sharif was under great pressure from the military not to cave in on the Kashmir issue and he insisted that it had to be included in the text of the Lahore Declaration. However, the Pakistani Prime Minister also recognised that he could not hold progress on nuclear CSBMs hostage to a

breakthrough over Kashmir. He knew that after the nuclear tests of May 1998, there was a new urgency to developing security cooperation and that a normalisation of relations with India would be popular at home and abroad. Nevertheless, he took a significant political risk with the hard liners in his government and, crucially, the military, when he settled for wording in the Lahore Declaration which talked about no more than intensifying efforts at finding a solution to the problem of Jammu and Kashmir. Sharif was prepared to take such a risk because he believed Vajpayee was serious about finding a solution. The two leaders had met alone for an hour during the summit and agreed to set up a back channel on Kashmir. Each leader would appoint an intermediary to conduct the secret dialogue with a view to reaching a solution by the end of the year.<sup>35</sup>

Sharif's willingness to compromise on Kashmir was undoubtedly made easier by the heady atmosphere of peace which Vajpayee evoked by his stunningly symbolic act of becoming the first Indian Prime Minister to visit the tower at Minar-e-Pakistan. This monument commemorates the place where in 1940 the Muslim League had issued their appeal for a separate state for the Muslims of British colonial India. No previous Indian Prime Minister had gone to Pakistan's birthplace, which Islamabad has interpreted as evidence that India does not accept Pakistan's right to exist and that New Delhi would swallow up Pakistan if the chance presented itself. Vajpayee understood the importance of visiting the Minare-Pakistan, since it was his way of reassuring Pakistanis that India had peaceful/defensive intentions.<sup>36</sup> In the Visitors' Book, he wrote what he had said the previous night, which was that 'India is for a united, stable, prosperous Pakistan.' He revealed later that day in his speech at the civic reception that there had been a debate among his advisors as to whether he should put 'his seal on Pakistan.' He said to rapturous applause that he had responded 'does Pakistan run on my seal? ... Pakistan has its own seal, that seal is recognised in the whole world.'<sup>37</sup> He talked much during those hours in Lahore about the importance of building trust, and by visiting the Miner-e-Pakistan he sought to demonstrate to Sharif and the Pakistani people that he was sincere in bringing the olive branch to Lahore.

Given the hopes and expectations for a new era of India–Pakistan relations that Vajpayee and Sharif conjured up by the magic of their meeting at Lahore, it is a cruel and bitter irony that only a few months later the two leaders should be sitting on top of military machines engaged in

conventional fighting across the LoC, with the ever-present danger that this conflict could escalate into a nuclear confrontation. Did Sharif and his generals betray the promise of Lahore by seeking to achieve military gains in Kashmir while Vajpayee's Government took its eye off the ball, basking as it was in the triumph of Lahore? Or was Sharif a sincere interlocutor with Vajpayee for peace, whose efforts were shipwrecked by a military operation that was planned in secret by Pakistani generals and conducted without Sharif's knowledge, let alone approval?

### **Sending Vajpayee's Bus of Trust over a Himalayan-sized Cliff<sup>38</sup>**

The Kargil crisis was triggered in early May 1999, when India discovered that Pakistan had infiltrated irregular and regular forces across the LoC in the Kargil area.<sup>39</sup> The Pakistani military had seen an opportunity to seize control of the high ground and gain a strategic advantage against the Indian military, a jockeying for position on the heights which had been a feature of their military interactions for the previous 50 years.<sup>40</sup> However, Pakistan's intrusion across the LoC was on a scale not seen since the Indo-Pakistani War of 1971. It only became feasible to undertake an operation on this scale in 1996, when a road was completed on the Pakistani side of the LoC that would allow the forward logistic support necessary to a military operation of this kind. The Indian response in the form of air strikes against Pakistan's new positions on the heights and a subsequent ground offensive led to the most intense fighting between the two sides since India had dismembered Pakistan and created the state of Bangladesh in the 1971 War.<sup>41</sup> Moreover, this was a crisis in which both sides threatened the other with nuclear escalation, and it was the spectre of the conflict turning nuclear that galvanised the Clinton Administration into a shuttle diplomacy that ended the crisis.

'How did the journey we began at Lahore end in Kargil?' This was the question that Mr Niaz Naik claims that Vajpayee put to him when he visited the Indian Prime Minister's residence on 27 June.<sup>42</sup> Naik was the Pakistan intermediary whom Sharif had appointed to negotiate a secret deal on Kashmir but who now found himself scrambling to avert a full-scale war between the two countries. Vajpayee's own answer to his question was that Pakistan had betrayed the trust that he had sought to build at Lahore. As he

later reflected, 'I had gone to Lahore with a message of goodwill but in return we got Kargil.'<sup>43</sup> Given that Kargil scuppered the peace process that had begun at Lahore, why did Pakistan's decision-makers choose to betray Vajpayee's trust in such a barefaced and dangerous manner?

The best explanation for the collapse of the peace process at Lahore is that the military architects of Kargil did not want a negotiated settlement over Kashmir that precluded Pakistan's takeover of the disputed territory. Since this grouping saw the latter as anathema to New Delhi, Pakistan had no alternative but to exploit every opportunity to make strategic gains at its adversary's expense. The leader of this group within the government was the Chief of Army Staff General Pervez Musharraf. Even before the two prime ministers had met at Lahore, it is claimed that the Pakistani military was engaged in preparations for Kargil.<sup>44</sup> This commitment to a military solution in Kashmir reflected Musharraf's belief that whatever the rhetoric of Indian leaders to the contrary, New Delhi would never make the kind of concessions that would satisfy Pakistan (or at least Musharraf) over Kashmir.<sup>45</sup>

Although Musharraf and the other top brass opposed the Lahore peace process, Pakistan's initial successes in taking control of positions along the heights undoubtedly benefited from the so-called 'spirit of Lahore.' The problem was that the Indian leadership appears to have been lulled into a false sense of security after the Lahore meeting by their confidence in Pakistan's peaceful intentions towards Kashmir. India even went so far as to cut back surveillance flights near the LoC and downplay reports of increased Pakistani military activity in that area.<sup>46</sup> Pakistani military leaders might have, as George Perkovich has argued, 'bristled at the lofty, conciliatory rhetoric and the intimations of pending rapprochement' at Lahore,<sup>47</sup> but they must have been emboldened in their adventurism over Kargil by their adversary letting down its guard after Lahore. Is it going too far to suggest that the Pakistani political and military leadership were working hand in glove here? Did Sharif lure Vajpayee to Lahore by talking the language of peace while his generals prepared for war?

That Pakistan had betrayed India Vajpayee had no doubt, but he never publicly accused the Pakistani leader of betraying him. This suggests that he continued to believe in Sharif's personal bona fides and blamed the Pakistani military for destroying the hopes for peace that had tantalisingly opened up at Lahore. Was Vajpayee right to continue to place his trust in



Sharif after Kargil? The available record permits no definitive answer here and we are left to choose between three contending interpretations of the Pakistani prime minister's role in the Kargil episode. The first is that Sharif and the Defence Committee of the Cabinet both knew about and fully supported the planning for Kargil, even before Sharif had embraced Vajpayee at Lahore. Not surprisingly, Musharraf has vigorously asserted this view, claiming in the aftermath of Kargil that 'everybody was on board.'<sup>48</sup> More specifically, Musharraf claimed in his 2006 memoir that Sharif was briefed on the operation on 29 January, 5 February and 12 March, as well as during the operation itself.<sup>49</sup>

The second interpretation of Sharif's role is diametrically opposed to the first and maintains that he and his fellow ministers were hoodwinked into a military operation aimed at sabotaging the fledgling peace process.<sup>50</sup> Did the military fear that Sharif was in danger of giving away the store on Kashmir and act to frustrate this eventuality? Support for this view comes from Naik, who was reported in the Urdu newspaper *Jang* in late 1999 as saying that India and Pakistan had been close to reaching an agreement over Kashmir when the Kargil crisis intervened. In an account that directly challenged the statements of Musharraf and other key Pakistani military leaders, Naik asserted that Sharif knew nothing about Pakistani military incursions until late April, when India found out what was happening.<sup>51</sup> Sharif subsequently backed this version of events when he claimed in an interview with S. Paul Kapur in 2007 that: 'I was misled by Musharraf on Kargil. He did not tell me a lot of things. He kept me in the dark by not really giving me the true picture ... I had the feeling that General Musharraf had stabbed *me* in the back.'<sup>52</sup> Consequently, if Sharif is to be believed, he should be exonerated of any responsibility for Kargil, which must be pinned instead on a military that was running amok outside any effective political control.<sup>53</sup>

The degree of Sharif's complicity for Kargil probably lies between the two extremes discussed above. It is straining credibility to think that he knew nothing about the operation and it seems most likely that Sharif and the Defence Committee approved the military moves.<sup>54</sup> According to Owen Bennett Jones, the key meeting took place in the second week of March at the headquarters of the Inter-Services Intelligence (ISI). Based on interviews with two of those who attended the meeting, he claims that Sharif agreed that the military could increase the level of insurgent activity

in Kashmir as a way of putting pressure on India to make concessions.<sup>55</sup> However, his interviewees claim that even at this stage, when the Kargil operation was well under way, there was no discussion of the Northern Light Infantry crossing the LoC to seize Kargil. The army knew their prime minister was not interested in the details of military planning and this gave them the opportunity to secure his approval for the mission without revealing that it would entail an attack across the LoC. But even if Sharif had realised what the military intended when they sought his permission to ‘increase the heat in

Kashmir,’ he appears to have dismissed this, in Bennett Jones’ words, as nothing more significant than the ‘army [wanting] to scrap for a few posts near the line of control.’<sup>56</sup> Perhaps, as Perkovich suggested, ‘Sharif may have thought that Lahore-style diplomacy and military aggression were not incompatible.’<sup>57</sup> Moreover, it has even been suggested that the army leadership, far from deliberately setting out to sabotage the peace process, might actually have not anticipated the scale of India’s military response to Pakistan’s actions. Yet to believe that Vajpayee and those who had accompanied him to Lahore would view a military attack as anything other than a ‘great betrayal’<sup>58</sup> showed an astonishing lack of empathy (failure to exercise security dilemma sensibility) on the part of both Sharif and his generals.

There is also the further twist that even if Sharif had been worried that Kargil might have the effect of strangling at birth the trust that he had begun to build up with Vajpayee, was he too weak politically to resist the generals?<sup>59</sup> Vajpayee had taken a risky leap of trust in going to Lahore, but Sharif, assuming an optimistic view of his intentions, had also taken a leap fraught with risks in signing the Lahore Declaration. If the Pakistani Prime Minister was to sustain that leap, he needed the Indian leadership to make an even bigger leap that matched the symbolism of Lahore with concrete movement on Kashmir. It could be argued that this was exactly what Vajpayee was trying to do through the back channel talks which Naik claimed were bearing fruit. However, if this process lacked political visibility, and such processes often depend for their success on remaining invisible until they are ready to be revealed to the world, then it would have been hard for Sharif to build up political support in the government for the path of negotiation in the face of a military that was eager to exploit its new-found nuclear status to make conventional gains in Kashmir. If the

Indian leadership had been better attuned to these domestic constraints on Sharif's room for manoeuvre, they might have appreciated the importance of making yet another frame-breaking conciliatory move to bolster the trust between the two political leaderships. As one official from India's External Affairs Ministry reflected during the Kargil crisis, 'We didn't build quickly enough [on the achievements of Lahore] ... Sharif took a risk for better relations, but we didn't reciprocate with concessions over Kashmir. He had nothing to show for it to a sceptical army.'<sup>60</sup>

## **Recreating the Atmosphere of Trust After Kargil**

There was certainly no appetite for new concessions in the months following Kargil. Despite the earlier popularity of his bus diplomacy, Vajpayee now came under attack at home for letting himself be tricked by Sharif at Lahore.<sup>61</sup> The Indian Prime Minister, leading a caretaker government pending new elections in September, reverted to the default position of governments when it comes to building trust with rivals and adversaries. This is that the other side is presumed to have shown by their behaviour that they have hostile intent, and countering this threat requires that decision-makers adopt the prescriptions of Jervis's deterrence model. Governments operating with this frame often remain open to the possibility that trust can be built. However, they see this as critically dependent upon their adversary taking the steps that demonstrate their trustworthiness.

Having been open to the possibility that India and Pakistan were trapped in a spiral and not a deterrent situation, Vajpayee went back after the betrayal at Kargil to assigning enemy status to Pakistan.<sup>62</sup> Speaking on 23 July in the immediate aftermath of the Kargil crisis, he said that 'Pakistan will have to recreate the atmosphere of trust it had destroyed by intruding into Kargil. Only then can the dialogue process be revived.'<sup>63</sup> To rebuild trust, the Indian leader stipulated that Pakistan must meet the following highly exacting conditions: first, it had to accept the inviolability of the LoC; and second, Islamabad had to take effective steps to end the cross-border terrorism on the territory of Jammu and Kashmir.<sup>64</sup> Vajpayee knew that Pakistan could never accept these demands as a precondition for dialogue, and expectations for peace became even lower when Musharraf deposed Sharif in a military coup in October 1999.

Low-intensity conflict rumbled on in Kashmir during 2000 as the military-led government supported the Kashmiri militants, leading to increased infiltration across the LoC. However, there was no repeat of the shooting war of the previous year. Recognising that there was no military solution to the problem of Kashmir, Vajpayee, whose BJP party had been returned to power in the last election, made yet another peace overture. But there was no leap this time. In a modest but important step, India declared in November 2000 a unilateral cease fire and Pakistan reciprocated with the offer of a truce along the LoC.<sup>65</sup> After six months, India suddenly terminated the cease fire, but Vajpayee in yet another startling development invited Musharraf to meet with him at Agra in July.<sup>66</sup>

Despite meeting face to face for several hours over two days, there was little evidence that these particular leaders were able to enter a 'space of trust.'<sup>67</sup> Relations were cordial, but both sides remained fundamentally divided on the issue of Kashmir. By contrast with Lahore, there was no final declaration, no joint press conference, and not even a formal handshake before the world's media.<sup>68</sup>

A few months later militant groups in Pakistan Occupied Kashmir (PoK) struck against the Indian Parliament building, triggering a massive mobilisation of Indian forces along the LoC and on the international border with Pakistan. India blamed Pakistan for the attacks, believing that the Musharraf government controlled the Kashmiri groups using terrorist tactics. New Delhi's explicit threats to destroy the training camps and cross into PoK if Pakistan did not take decisive action to stop the attacks suggested that India was not deterred from taking such action by Pakistan's nuclear arsenal; indeed, it is argued that Kargil had convinced Indian planners that it was possible to fight a limited conventional war (one which did not threaten Pakistan's very survival) without it escalating to the nuclear level.<sup>69</sup> A combination of Indian threats and US pressure led Musharraf to promise that Pakistan territory would not be used as a launching ground for terrorism.<sup>70</sup>

However, the hollowness of this promise or the limited control that Islamabad exercised over these groups was revealed on 14 May 2002 when militants struck against an Indian army camp at Kaluchak. This time India threatened a major assault against Pakistan itself, aimed at destroying the Pakistan army.<sup>71</sup> India's then National Security Advisor, Brajesh Mishra, subsequently claimed in an interview with Kapur that Pakistan's promise,

elicited under strong US pressure, to end its support for cross-border terrorism was a vindication of India's strategy of coercive diplomacy.<sup>72</sup> Other commentators have rejected this claim, pointing out that not only has the Pakistan Government failed to live up to the commitment it made in 2002 but also, even more tellingly, India decided not to launch a major conventional attack against Pakistan because of the fear that this might escalate to the nuclear level.<sup>73</sup>

The experience of having gone eyeball to eyeball (Dean Rusk's memorable phrase from the Cuban Missile Crisis) during the 2002 crisis brought home to Indian and Pakistani leaders just how much they shared a common interest in avoiding war in a nuclearised South Asia. The superpowers' near-fatal collision over Cuba had spurred their efforts to agree nuclear risk-reduction measures, and the same dynamics can be seen at work in the South Asian context.

Having tried a leap of trust, and then the hope that a one-on-one meeting with Musharraf might lead to a decisive breakthrough, Vajpayee and his advisors were now keen to explore the potential of a bilateral (as against a unilateral approach such as GRIT) step-by-step approach to trust-building. Before any new meeting at prime-ministerial level, there had to be progress at junior diplomatic levels that would justify holding a summit. The Indian leader continued to insist that Pakistan must end its support for cross-border terrorism as a signal of its potential trustworthiness. However, he considered that the best way to build the trust that might eventually lead Pakistan to end its support for the militants was to take simple steps that both could agree on, while deferring any discussion of Kashmir until later on in the process. The result was that both sides were able to take small steps together such as increased people-to-people contacts and the resumption of sporting ties. These were important to improving the atmosphere between the two countries and laid the groundwork for the 'Composite Dialogue' that began in 2004.<sup>74</sup>

The Composite Dialogue has continued up until the present day and it encompasses both nuclear CSBMs and Kashmir. These negotiations have been periodically interrupted, most recently after the Mumbai attacks in November 2008, which New Delhi blamed on Pakistan's continuing support of militant groups. Yet despite the regular discussions that have taken place on nuclear CSBMs since 2004, there has been little substantive progress beyond the measures agreed at Lahore. This is a reflection of not

only the continuing distrust in the relationship but also the fundamental problem that Pakistan has held agreement on nuclear CSBMs hostage to serious movement on the Kashmir issue.

## **Conclusion**

A leap of trust can only work in those situations where governments have peaceful/defensive intentions but each fails to understand how its own actions might be seen as threatening by the other. In a Jervisian spiral of this kind, the challenge for decision-makers is to *both exercise and operationalise* policies of security dilemma sensibility. The most remarkable practical expression of this is a leap of trust such as the one Vajpayee took in going to Lahore. A leap is aimed at sending a powerful signal of a state's potential trustworthiness and it can only succeed if the target of the leap also views the relationship in spiral terms. If one of the players continues to believe that it can make gains at the expense of its adversary then there can be no basis for a trusting relationship. In the South Asian context, this requires that both India and Pakistan give up the belief that the military option might work in Kashmir; it was the refusal of key Pakistani military leaders to do this that led to the crisis at Kargil.

The second factor that bears crucially on the potential for building trust between India and Pakistan is the paradoxical impact that nuclear capabilities have had on their relationship. Vajpayee's growing sense in the run-up to the meeting at Lahore that he was destined to play a key role in bringing peace to South Asia is an important explanation of the leap he took. However, he also appears to have believed that India's new nuclear status placed upon it a responsibility to work with Pakistan in developing a new regime of strategic restraint. At the same time, there is some evidence that the Indian Government saw nuclear weapons as providing a margin of safety in beginning a new dialogue with Islamabad.<sup>75</sup>

Yet if Vajpayee and his inner circle felt the arrival of the Indian bomb facilitated the building of trust with its arch enemy, the opposite was the case in the thinking of key Pakistani military leaders, who appear to have viewed the bomb as making possible limited conventional probes in Kashmir without the fear that this would escalate to higher levels of violence.<sup>76</sup> The conclusion to be drawn from these differing perceptions of

the role of the bomb in the South Asian context is that they both enabled the dialogue between Vajpayee and Sharif at Lahore and also contributed to its derailment at Kargil.

The third factor and the most important from a trust-building perspective, an optimistic reading of Sharif's motives and intentions leads to the conclusion that building and sustaining trust depends upon both a united government and strong leadership. Offensive realism has highlighted the obstacles to building trust that arise from the problem of future uncertainty. But in this case the problem was not that Sharif's successors failed to live up to the commitments that he as Pakistan's prime minister had entered into at Lahore. Instead, the trust-building process collapsed because the civilian leadership was insufficiently in control of Pakistan's national security policy and Sharif failed to appreciate that a Kargil-type adventure was incompatible with the diplomatic process that he had begun at Lahore.<sup>77</sup>

It is a fascinating counterfactual speculation whether another Pakistani leader who had the insight to fully understand the impact on the peace process of a military operation like the one that was being planned at Kargil would have overruled the military on this. A further speculation concerns how Sharif would have reacted to the military's plans at the meeting in March had Vajpayee followed up the Lahore meeting with a major concession on Kashmir. Would this have robbed the generals of their argument that India would only make real concessions if Pakistan stepped up the military pressure in Kashmir and tipped the balance internally in favour of those who supported dialogue and trust-building? Perhaps such a decisive breakthrough would have been the outcome of the backchannel diplomacy on Kashmir that had begun after Lahore. As it was, the promise of this dialogue leading to a final settlement, as both leaders had wanted, was crushed by the Pakistan military's timetable for Kargil. How to shield trust-building initiatives from domestic spoilers – especially leaps which leave their progenitors most exposed politically – is a major challenge that will face future trust-building endeavours in the South Asian context and elsewhere.

Ten years after the promise of trust that was briefly glimpsed at Lahore, New Delhi and Islamabad remain distrustful and suspicious of each other. Breaking this cycle of fear and suspicion probably requires a similar dramatic move to the one that Vajpayee made in going to Lahore. It remains

to be seen whether current and future leaders in India and Pakistan have the imagination and vision to rise to this challenge, and whether any future leaps will be more successful in developing trust between India and Pakistan than the ones taken by Vajpayee and Sharif over a decade ago.

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1 Prime Minister Atal Behari Vajpayee quoted in Jawed Naqvi, 'Vajpayee Wants Meeting of Hearts with Musharraf,' 4 February 2002, Available at <http://www.dawn.com/2002/02/04/top1.htm> [accessed 19 February 2007].

2 Sumit Ganguly and Devin T. Hagerty, *Fearful Symmetry: India–Pakistan Crises in the Shadow of Nuclear Weapons* (Oxford: Oxford University Press, 2005).

3 John Dunn, 'Trust', in Robert E. Goodin and Philip Pettit, *A Companion to Contemporary Political Philosophy* (Oxford: Blackwell, 1993), p. 641.

4 See also Ken Booth and Nicholas J. Wheeler, *The Security Dilemma: Fear, Cooperation and Trust in World Politics* (Basingstoke: Palgrave Macmillan, 2008), p. 230.

5 See Booth and Wheeler, *The Security Dilemma*. Compare with Robert Jervis, *Perception and Misperception in International Politics* (Princeton, NJ: Princeton University Press, 1976), pp. 66–67; and Robert Jervis, 'Cooperation Under the Security Dilemma,' *World Politics*, vol. 30, no. 2 (1978), p. 181.

6 Booth and Wheeler, *The Security Dilemma*, pp. 3–6.

7 Jervis, *Perception and Misperception*, pp. 58–113.

8 Jervis, *Perception and Misperception*, p. 75.

9 Herbert Butterfield, *History and Human Relations* (London: Collins, 1951), p. 21.

10 Jervis, 'Cooperation Under the Security Dilemma,' p. 181.

11 Booth and Wheeler, *The Security Dilemma*, p. 7.

12 Jervis, *Perception and Misperception*, p. 83.

13 Evan B. Montgomery, 'Breaking Out of the Security Dilemma: Realism, Reassurance and the Problem of Uncertainty,' *International Security*, vol. 31, no. 2 (2006), pp. 153–4, 158–61, 184.

14 John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York: W.W. Norton, 2001), p. 31.

15 Mearsheimer, *The Tragedy of Great Power Politics*, p. 31. See also Dale C. Copeland, 'The Constructivist Challenge to Structural Realism: A Review Essay,' *International Security*, vol. 25, no. 2 (2000), pp. 188–9, 199–212; Dale C. Copeland, 'A Realist Critique of the English School,' *Review of International Studies*, vol. 29, no. 3 (2003), pp. 428, 434–5.

16 Charles E. Osgood, *An Alternative to War or Surrender* (Chicago, IL: University of Illinois Press, 1969, 2nd edition).

17 David J. Finley, Ole R. Holsti and Richard R. Fagen, *Enemies in Politics* (Chicago, IL: Rand McNally, 1967), p. 26.

18 I am grateful to Roderick Kramer for suggesting this formulation.

19 Robert G. Wirsing, *Kashmir in the Shadow of War: Regional Rivalries in a Nuclear Age* (New York: M.E. Sharpe, 2003), p. 19.

20 Ganguly and Hagerty, *Fearful Symmetry*, pp. 127–32.

21 John Cherian, 'Face-off in Colombo,' *Frontline*, vol. 15, no. 17), 15–28 August 1998, Available at <http://www.hinduonnet.com/fline/fl1517/15170140.htm> [accessed 6 August 2009].

22 M.L. Sondhi and Prakash Nanda, *Vajpayee's Foreign Policy: Daring the Irreversible* (New Delhi: Har-Anand Publications, 1999), p. 117.

23 *The Statesman*, 23 July 1999 [accessed from Lexis–Nexis 12 August 2009].

24 *The Statesman*, 23 July 1999 [accessed from Lexis–Nexis 12 August 2009].

25 Jyoti Malhotra, 'Vajpayee To Take Bus to Pak,' *The Indian Express*, 3 February 1999. Available at <http://www.indianexpress.com/ie/daily/19990204/ipo04061.html> [accessed 7 August 2009].

2009].

26 Shekhar Gupta, 'Let's Discuss the N-issue, the Missile Issue,' *The Indian Express*, 2 February 1999. Available at <http://www.indianexpress.com/ie/daily/19990203/ige03051.html> [accessed 6 August 2009].

27 C. Raja Mohan, 'Travelling Together, Hopefully,' *The Hindu*, 7 February 1999.

28 Sondhi and Nanda, *Vajpayee's Foreign Policy*, p. 124.

29 Kathy Gannon, 'Balance of Terror Helps Peace,' *The Associated Press*, 16 February 1999.

30 Amit Baruah, 'The Bus to Pakistan,' *Frontline*, vol 16, no. 5, 27 February–12 March 1999. Available at <http://www.thehindu.com/fline/fl1605/16050040.htm> [accessed 12 August 2009]; Arun Shourie, 'On Treasuring a Moment,' The Arun Shourie Site, 25 February 1999. Available at <http://shourie.bharatvani.org/articles/19990225.htm> [accessed 7 August 2009]; Owen Bennett Jones, *Pakistan: Eye of the Storm*, 3rd edition (New Haven: Yale University Press, 2009), p. 124. Compare these accounts with Cherian, 'Face-off in Colombo.'

31 Jaswant Singh, *In Service of Emergent India: A Call to Honor* (Bloomington: Indiana University Press, 2007), p. 168.

32 Wirsing, *Kashmir in the Shadow of War*, p. 19, p. 24; Waheguru Pal Singh Sidhu, 'In the Shadow of Kargil: Keeping Peace in Nuclear South Asia,' *International Peacekeeping*, vol. 7, no. 4 (2000), p. 89; Ganguly and Hagerty, *Fearful Symmetry*, p. 151; Saira Khan, 'Nuclear Weapons and the Prolongation of the India–Pakistan Rivalry,' in T.V. Paul, ed., *The India–Pakistan Conflict* (Cambridge: Cambridge University Press, 2005), p. 173.

33 Cherian, 'Face-off in Colombo.'

34 Zia Mian, A.H. Nayyar and M.V. Ramana, 'Making Weapons, Talking Peace,' *The Economic and Political Weekly*, 17 July 2004. Available at [[http://groups.yahoo.com/group/SAAN\\_/message/721](http://groups.yahoo.com/group/SAAN_/message/721)] [accessed 10 August 2009].

35 The Pakistani envoy appointed by Sharif was Mr Niaz A. Naik and he gave an account of the talks to Robert Wirsing in 2001. Naik claimed that he and the Indian representative R.K. Mishra were close to reaching an agreement over Kashmir before the process was torpedoed by Kargil. See Wirsing, *Kashmir in the Shadow of War*, pp. 25–36. Bennett Jones agreed that the 'Peace initiative was shattered by the Kargil offensive' though he questions whether the agreement that was being worked out by Naik and Mishra would have been acceptable to the Indian Government. Nevertheless, he recognises that 'a great opportunity for genuine dialogue had been missed.' For his account of the talks, see Owen Bennet Jones, *Pakistan: Eye of the Storm*, pp. 114–16.

36 Wirsing, *Kashmir in the Shadow of War*, p. 19; Ganguly and Hagerty, *Fearful Symmetry*, p. 151.

37 Shourie, 'On Treasuring a Moment.'

38 The title of this section is an adaptation of a line in Christopher Kremmer's article where he says 'The stab in the back at Kargil has sent Vajpayee's bus diplomacy over a Himalayan-sized cliff.' See Christopher Kremmer, 'Losing the Line of Control,' *The Sydney Morning Herald*, 5 June 1999 [accessed from Lexis–Nexis 5 August 2009].

39 Pakistan has always officially denied that its forces crossed the LoC. It has claimed that the conflict was caused by 'Kashmiri freedom fighting Mujahideen' operating across the LoC, which led India to overreact by attacking across the line, leading to hostilities with Pakistani regular forces. For example, see Pervez Musharraf, *In the Line of Fire: A Memoir* (London: Simon and Schuster, 2006), pp. 87–88. Musharraf also claims controversially on pp. 90–95 of his book that Pakistani military deployments on the heights prior to the commencement of hostilities were defensive in response to warning indicators that India was preparing offensive operations.

40 Wirsing, *Kashmir in the Shadow of War*, pp. 40–42; Pervez Musharraf, *In the Line of Fire*, pp. 87–88; S. Paul Kapur, *Dangerous Deterrent: Nuclear Weapons Proliferation and Conflict in South*

*Asia* (Stanford, CA: Stanford University Press, 2007).

41 Wirsing, *Kashmir in the Shadow of War*, p. 49.

42 Wirsing, *Kashmir in the Shadow of War*, p. 31.

43 Quoted in Jawed Naqvi, 'Vajpayee Wants Meeting of Hearts with Musharraf,' 4 February 2002. Available at <http://www.dawn.com/2002/02/04/top1.htm> [accessed 19 February 2007].

44 Kapur, *Dangerous Deterrent*, p. 119.

45 George Perkovich, *India's Nuclear Bomb: The Impact on Global Proliferation* (CA: University of California Press, 2002, 2nd edition), p. 472; Rick Shenkman, 'How Did India and Pakistan End Up on the Brink of Nuclear War?' History News Network, 6 May 2002. Available at <http://historynewsnetwork.org/articles/775.html> [accessed 10 August 2009].

46 Ganguly and Hagerty, *Fearful Symmetry*, pp. 152, 159.

47 Perkovich, *India's Nuclear Bomb*, 472.

48 Amit Baruah, 'Kargil Impeded Pact on Kashmir: Niaz Naik,' *The Hindu*, 15 September 1999. See also Perkovich, *India's Nuclear Bomb*, p. 46; Wirsing, *Kashmir in the Shadow of War*, p. 46.

49 Musharraf, *In the Line of Fire*, p. 96. Curiously, Musharraf makes no mention of the eight hours that Sharif reportedly spent at General Headquarters in Rawalpindi on 2 February, 18 days before he met Vajpayee at Lahore. See also Kapur, *Dangerous Deterrent*, pp. 118–19.

50 Wirsing, *Kashmir in the Shadow of War*, p. 38.

51 Baruah, 'Kargil impeded pact on Kashmir: Niaz Naik.' See also Inder Malhotra, 'Row over Niaz Naik Revelations,' *The Hindu*, 22 September 1999.

52 Quoted in Kapur, *Dangerous Deterrent*, pp. 120–21.

53 Baruah, 'Kargil Impeded Pact on Kashmir: Niaz Naik;' Malhotra, 'Row over Niaz Naik Revelations;' Wirsing, *Kashmir in the Shadow of War*, p. 34; Kapur, *Dangerous Deterrent*, p. 119.

54 Kapur, *Dangerous Deterrent*, p. 119.

55 Bennett Jones, *Pakistan: Eye of the Storm*, p. 122.

56 Bennett Jones, *Pakistan: Eye of the Storm*, p. 122.

57 Perkovich, *India's Nuclear Bomb*, p. 473.

58 Singh, *In Service of Emergent India*, p. 194. Despite Indian perceptions of 'betrayal,' it is conceivable that the Pakistani military massively miscalculated over Kargil rather than sought to intentionally derail the trust-building process (confidential interview with former Indian official).

59 Sidhu, 'In the Shadow of Kargil,' pp. 191–2.

60 Kremmer, 'Losing the Line of Control.'

61 Kremmer, 'Losing the Line of Control;' Wirsing, *Kashmir in the Shadow of War*, p. 59.

62 Khan, 'Nuclear Weapons and the Prolongation of the India–Pakistan Rivalry,' p. 173.

63 'No Intelligence Failure in Kargil, says Vajpayee,' *The Statesman*, 23 July 1999 [accessed from Lexis–Nexis 12 August 2009].

64 Wirsing, *Kashmir in the Shadow of War*, p. 59.

65 Wirsing, *Kashmir in the Shadow of War*, pp. 60–61; Khan, 'Nuclear Weapons and the Prolongation of the India–Pakistan Rivalry,' p. 174.

66 Wirsing, *Kashmir in the Shadow of War*, p. 61.

67 I am grateful to Meenakshi Gopinath for suggesting this terminology.

68 Wirsing, *Kashmir in the Shadow of War*, pp. 62–63. Musharraf subsequently blamed Vajpayee for his timidity in the face of hard liners within his own government. See Musharraf, *In the Line of Fire*, p. 299.

69 Kapur, *Dangerous Deterrent*, pp. 137–8.

- 70 Kapur, *Dangerous Deterrent*, p. 134.
- 71 Kapur, *Dangerous Deterrent*, pp. 134–5
- 72 Kapur, *Dangerous Deterrent*, p. 129.
- 73 Ganguly and Hagerty, *Fearful Symmetry*, pp. 167–82.
- 74 Edward Luce, ‘Vajpayee’s Gambit: Can India Find a Rapprochement with Pakistan at the Third Attempt?’ *The Financial Times*, 9 May 2003.
- 75 Perkovich, *India’s Nuclear Bomb*, p. 471.
- 76 Perkovich, *India’s Nuclear Bomb*, p. 473; Kapur, *Dangerous Deterrent*, p. 122–7.
- 77 Wirsing, *Kashmir in the Shadow of War*, p. 35; Perkovich, *India’s Nuclear Bomb*, pp. 472–3.

# Chapter 10

## Nuclear Confidence-building Measures between India and Pakistan: Possible Alternatives

Zafar Nawaz Jaspal

### Introduction

The continuity of belligerence between India and Pakistan since the partition in 1947 and the violation of numerous bilateral agreements not only generates lack of trust but also seriously impairs deep cooperation between them. The conventional and non-conventional arms race between India and Pakistan endangers their national securities. The prevailing South Asian strategic environment underlines that nuclear weapons disarmament is neither acceptable to India nor in the strategic calculation of Pakistan. New Delhi and Islamabad frequently articulate that they do not have any good reason to join the nuclear Non-proliferation Treaty (NPT) as non-nuclear weapons states.<sup>1</sup> Representatives of both states jealously guard their states' nuclearised status at the international forums, particularly the United Nations Conference on Disarmament (CD). Simultaneously, both sides are reluctant to constitute a bilateral nuclear restraint regime. The unrestrained nuclear weapons build-up that both states are pursuing will produce a large and complex force structure in each, having an overkill potential.<sup>2</sup> Indeed, the overkill nuclear weapons capability entails nuclear weapons with hair-trigger deployment, which obviously will increase the chances of unauthorised and accidental use of nuclear weapons in a future Indo-Pakistani crisis.

The strategic competition between India and Pakistan has germinated three paradoxes: the instability/stability paradox; the vulnerability/invulnerability paradox; and the independence/dependence paradox.<sup>3</sup> The dilemma posed by each of these paradoxes, especially the

vulnerability/invulnerability paradox, signify the vitality of Nuclear Confidence- Building Measures (NCBMs) between India and Pakistan. In addition, the Mumbai terrorist attacks in November 2008 have intensified the need to widen the horizon of NCBMs between the belligerent neighbours to prevent nuclear terrorism. Theoretically, the current India–Pakistan strategic environment seems conducive to NCBMs-related endeavours due to two factors: ‘balance of terror’ and ‘survivability of composite dialogue’ between New Delhi and Islamabad.<sup>4</sup> Although New Delhi and Islamabad comprehend the significance of NCBMs, neither has demonstrated any forthrightness and the progress in the realm of NCBMs in the past years has been spotty and slow.

Growing militant activities in both India and Pakistan increases the chances of nuclear/radiological terrorism. Despite the rise of such new threats, the security debate in South Asia is conducted around military and political standoff between India and Pakistan. The threat of nuclear/radiological terrorist attacks has even failed to catch the attention of academic circles in the region. Hypothetically, if terrorist groups use a radioactive or ‘dirty’ bomb, or disperse radiological hazards by an attack on, or sabotage of, a nuclear facility or a transport vehicle in either country, the victim state immediately will accuse the other state by drawing the conclusion that it was ‘state-sponsored terrorism.’<sup>5</sup> This kind of adversary fixation is very dangerous in the South Asian nuclearised strategic environment.

A review of relevant literature reveals that the South Asian security analysts have generally focused on nuclear weapons competition, nuclear doctrines and the horrendous consequences of the failure of nuclear deterrence between India and Pakistan. A few of them did conclude that the NCBMs approach between India and Pakistan is a practicable solution to the nuclear-related threat. Ironically, current NCBMs between India and Pakistan are woefully inadequate or would be useless to prevent an unauthorised or accidental use of nuclear weapons and/or a nuclear/radiological terrorist attack. Moreover, the existing NCBMs do not facilitate New Delhi and Islamabad even to discuss the possibility of nuclear arms control between them. The deficiency in NCBMs between nuclear rivals India and Pakistan germinate serious questions, including how meaningful NCBMs are in a volatile India-Pakistan strategic

environment? What are the possible alternative options for NCBMs between India and Pakistan?

The purpose of this chapter is to critically examine the existing NCBMs between India and Pakistan and highlight possible alternatives to improve and broaden the horizon of the NCBMs between the two belligerent neighbours. These NCBMs would not only thwart or at least slow down the nuclear arms race between India and Pakistan but also minimise risks of accidental or inadvertent use of nuclear weapons in the region and open up the potential of cooperation to reduce the likelihood of nuclear terrorism.

## **Conceptualising NCBMs and Their Links with Arms Control**

The policymaking elites of India and Pakistan need to realise that nuclear arms are an entirely new generation of weaponry in terms of destructiveness and their long-term effects on biological life and the environment. As the United States strategist Bernard Brodie pointed out in the very first years of the nuclear age, the most important task facing two potential nuclear adversaries is to ensure that all circumstances that might lead to war should be avoided. More explicitly, deterrence stability should be the primary objective of nuclear postures. For this, continuous communication between the nuclear-capable rivals at the highest levels of political and military leaderships is necessary. The pursuit of transparency and communication justifies an array of NCBMs constructed in the realm of the arms control paradigm between India and Pakistan. The NCBMs are an extension of conventional Confidence-Building Measures (CBMs). Vocabulary, techniques and the executing process of NCBMs have basically derived from existing conventional CBMs.

CBMs are the modest steps required to facilitate and usher in the right environment to avert military crises, reduce tensions and allow political and military leadership on the rival sides to communicate with each other. Notably, the term 'confidence-building measures' entered into diplomatic language following the negotiation of some modest measures during the Conference on Security and Cooperation in Europe (CSCE) in 1975 in Helsinki. The Helsinki Final Act set out three basic objectives for undertaking CBMs: first, to eliminate the causes of tensions; second, to promote confidence and contribute to stability and security; and third, to

reduce the danger of armed conflict arising from misunderstanding or miscalculation.<sup>6</sup>

The advocates of CBMs believe that one of the major causes of insecurity and the security dilemma in interstate relations is lack of information about the military activities of opposing sides. The security dilemma puzzle requires states to think in terms of worst-case scenarios. This worst case or perceived military conflict dictates states' technical level of strategy, which unleashes arms races between/among countries. The arms race contains an inbuilt feature to germinate transition in state power and also disturb the existing balance of power. The disturbance of the balance of power sometimes leads to war. The lethality of weapons such as nuclear weapons has discredited the Clausewitzian concept of war. If war is not a profitable act in the achieving of political objectives, the best strategy is to avoid a war. This kind of realisation among policymakers is conducive to the processes of CBMs. Many South Asian scholars have strongly advocated for Indo–Pakistani CBMs. For example, P.R. Chari has suggested, to bring about an agreement on the prevention of incidents at sea, setting up appropriate consultative mechanisms to monitor and ensure effective implementation of these CBMs. He also has strongly suggested holding bilateral consultations on security, disarmament and non-proliferation issues, which might lead to formal agreements.<sup>7</sup>

Presently, various kinds of CBMs are practised between/among strategic competitors, i.e. military, diplomatic, cultural and political. The focus of this chapter is on NCBMs; therefore the discussion is limited to within the military framework. The military CBMs assist in sharing the military information of the actors. The sharing of information does not only assist in addressing the challenges of miscalculation and misperception but, it also facilitates the promotion of arms control and disarmament between the strategic competitors. Pervaiz Iqbal Cheema points out that 'CBMs can take the form of a general understanding between nations and may merge in the form of a formal agreement.'<sup>8</sup> Indeed, CBMs are useful instruments for preventing wars; bringing about arms-control and disarmament agreements and facilitating conflict management entailing conflict resolution. Conversely, the possibility of cheating cannot be ruled out, especially when CBMs are introduced between states with a history of mutual distrust and hostility. Therefore, CBMs are not a universally applicable remedy and in some cases they may not prevent war. In fact CBMs are not intended to



lower the military preparedness of a state, they are simply measures to reduce tension so that no one is tempted to launch a surprise military strike against the other. They are a tool in the toolbox of regulatory measures between states and can be a rather useful one.<sup>9</sup>

In the aftermath of the Cuban Missile Crisis in October 1962, CBMs assisted in bringing about arms control agreements between the superpowers.<sup>10</sup> An arms-control approach seeks to reduce the risk of war by limiting or reducing the threat from potential adversaries, rather than relying solely on unilateral military responses to the perceived or anticipated changes in the military threat. It is not in conflict with, or a substitute for, military preparedness, but seeks to complement it by providing increased security at lower and less dangerous levels.<sup>11</sup> According to Jozef Goldblat, a wide range of measures has come to be included under the rubric of arms control, in particular to:

- a. freeze, limit, reduce or abolish certain categories of weapons;
- b. ban the testing of certain weapons;
- c. prevent certain military activities;
- d. regulate the deployment of armed forces;
- e. proscribe transfers of some militarily important items;
- f. reduce the risk of accidental war;
- g. constrain or prohibit the use of certain weapons or methods of war;  
and
- h. build up confidence among states through greater openness in military matters.<sup>12</sup>

Arms control specifically is about reduction in the risks of war, reduction in the damage that might otherwise be suffered in war, and reduction in the burden of peacetime military preparation. More elaborate objectives than these have emerged over time, but these three command general acceptances as the canonical trinity of arms control purposes.<sup>13</sup>

The preceding discussion manifests that NCBMs would increase openness and transparency in military activities and in nuclear weapons acquisitions, thus increasing the predictability of the adversaries' actions and behaviour. Under the NCBMs arrangement between India and Pakistan, normal military activities would not be mistakenly perceived as threatening.

In addition, military activities that do pose a threat or provoke a crisis would be immediately identifiable if appropriate NCBMs are undertaken. Therefore, the NCBMs would strengthen stability and enhance regional security by institutionalising channels of communication between India and Pakistan. Lt. Gen (Retd.) Talat Masood opined, 'In view of the enormous and significant dangers of nuclear conflict, there is an urgent need to develop comprehensive CBMs. It would be a fallacy to believe that there is an advantage in keeping the nuclear danger alive so as to force a recalcitrant India to the negotiating table.'<sup>14</sup> Thus, NCBMs would be the modest steps that facilitate and usher in the right strategic environment to avoid new explosions and thereby reduce tensions.

## **Constructive Initiatives**

India conducted its peaceful nuclear explosion on 18 May 1974. India's nuclear test, the Canadians' decision to cut off the nuclear fuel supply to the Karachi nuclear power plant, and the creation of the Nuclear Suppliers Group (NSG) at the behest of the United States in 1975 changed the direction and speed of Pakistan's nuclear programme.<sup>15</sup> The Pakistan Atomic Energy Commission (PAEC) anticipated future cut offs and sanctions from the nuclear supplier states of fuel cycle facilities, including the French reprocessing plant. The PAEC initiated research and development studies for uranium enrichment at PINSTECH and by October–November 1974 had chosen the gas centrifuge method for uranium enrichment. Simultaneously, the PAEC also began to work on a nuclear fuel cycle to achieve self-reliance.<sup>16</sup> The PAEC successfully manufactured its first atomic device in 1983.<sup>17</sup> Pakistan's advancement in nuclear weapons technology, the start of the prolonged limited border war at the Siachen Glacier in the winter of 1983–84 and India's Brasstacks military exercise in the winter of 1986–87 had a profound impact on bilateral relations between India and Pakistan. The reports about Pakistan's nuclear weapons capability were taken seriously in New Delhi. Consequently, in the late 1980s India and Pakistan began to undertake some tentative NCBMs. The following steps are noteworthy:

## ***Agreement on the Prohibition of Attacks Against Nuclear Installations and Facilities***

New Delhi and Islamabad signed an agreement not to attack each other's nuclear installations on 31 December 1988 and ratified it in 1991, with a condition that they would exchange lists of their nuclear facilities every year on 1 January. Beginning on 1 January 1992, the two countries have consistently exchanged lists.

## ***Lahore Memorandum of Understanding***

In February 1999, during the Lahore Summit the Memorandum of Understanding (MOU) was signed by Indian Foreign Secretary K. Raghunath and Pakistani Foreign Secretary Shamshad Ahmad. According to the MOU, both India and Pakistan had approved CBMs for improving their security environment. Seven of the eight points listed in the MOU directly addressed nuclear reduction for the first time. The issues decided upon were:

1. 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.
2. The two sides shall undertake to provide each other with advance notification in respect of ballistic missile flight tests, and shall conclude a bilateral agreement in this regard.
3. The sides are fully committed to undertake national measures to reduce the risks of accidental or unauthorised use of nuclear weapons under their respective control. The two sides further undertake to notify each other immediately in the event of any accidental, unauthorised or unexplained incident that could create the risk of fallout with adverse consequences for both sides, or an outbreak of a nuclear war between the two countries, as well as to adopt measures aimed at diminishing the possibility of such actions, or such incidents being misinterpreted by the other. The two sides shall identify/establish appropriate communication mechanisms for this purpose.

4. The two sides shall continue to abide by their respective unilateral moratorium on conducting further nuclear test explosions unless either side, in exercise of its national sovereignty, decides that extraordinary events have jeopardised its supreme interests.
5. The two sides shall conclude an agreement on prevention of incidents at sea in order to ensure safety of navigation by naval vessels, and aircraft belonging to the two sides.
6. The two sides shall periodically review the implementation of existing (CBMs) and where necessary, set up appropriate consultative mechanisms to monitor and ensure effective implementation of these CBMs.
7. The two sides shall undertake a review of the existing communication links (e.g. between the respective Directors-General, Military Operations, with a view to upgrading and improving these links, and to provide for fail-safe and secure communications).
8. The two sides shall engage in bilateral consultations on security, disarmament and non-proliferation issues within the context of negotiations on these issues in multilateral fora.<sup>18</sup>

The technical details of these measures were to be worked out by experts of the two sides before mid-1999 with a view to reaching bilateral agreements. However, it never moved beyond the signing ceremony. The eruption of the Kargil conflict shattered all the hopes that were aroused at the Lahore summit.

### ***Composite Dialogue and NCBMs***

After the hiatus of nearly four years, India and Pakistan agreed to start a composite dialogue in January 2004. In the composite dialogue, NCBMs once again received serious attention from New Delhi and Islamabad. The first round of talks on NCBMs were held on June 19–20 2004 in New Delhi. The talks were held in accordance with the agreement reached between the foreign secretaries of India and Pakistan on 18 February 2004. On 20 June, during the second round of discussion, both sides identified following issues:

1. A dedicated and secure hotline would be established between the two foreign secretaries through their respective foreign offices to prevent misunderstanding and reduce risks relevant to nuclear issues.
2. They decided to work towards concluding an agreement with technical parameters on pre-notification of flight-testing of missiles, a draft of which was handed over by the Indian side.
3. Each side reaffirmed its unilateral moratorium on conducting further nuclear explosions unless, in the exercise of national sovereignty, it decides that extraordinary events have jeopardised its supreme interests.
4. They would continue to engage in bilateral discussions and hold further meetings to work towards implementation of the Lahore Memorandum of Understanding of 1999 reached between Prime Ministers Atal Bihari Vajpayee and Nawaz Sharif.
5. They would continue to engage in bilateral consultations on security and non-proliferation issues within the context of negotiations on these issues in multilateral fora.
6. They recognised that each other's nuclear capabilities, which are based on their national security imperatives, constitute a factor for stability.
7. They would be committed to national measures to reduce the risks of accidental or unauthorised use of nuclear weapons under their respective controls and to adopt bilateral notification measures and mechanisms to prevent misunderstandings and misinterpretations.
8. They declared that they would be committed to working towards strategic stability and reiterated that they were conscious of their obligation to their peoples and the international community.

### ***Agreement on Pre-notification of Flight-testing of Ballistic Missiles***

The agreement was signed on 3 October 2005. Under this agreement both sides agreed to notify the other side in advance of any ballistic missile tests. Since then, New Delhi and Islamabad have maintained their pledge by notifying the other side of any ballistic missile test.

## ***Agreement on Reducing the Risk of Accidents Relating to Nuclear Weapons***

This Agreement was signed on 21 February 2007. Under the agreement each party pledged to maintain and improve existing national measures, including organisational and technical arrangements, to guard against accidents related to nuclear weapons under its control. The parties will notify each other immediately in the event of any accident relating to nuclear weapons, under their respective jurisdiction or control, which could cause the risk of radioactive fallout, with adverse consequences for both sides, or create a risk of an outbreak of a nuclear war between the two countries.

The preceding discussion generates optimism that New Delhi and Islamabad have a realisation about the need for NCBMs. Yet they have failed to negotiate and agree on substantive NCBMs, which will facilitate the growth of transparency and communication in order to reduce tension. The existing NCBMs neither eliminate the causes of tensions nor reduce the danger of armed conflict arising from misunderstanding, miscalculation and arms race. The strategic outlook of India and Pakistan and increasing terrorist threats in both states mean that both nations ought to expand the sphere of NCBMs to prevent the unauthorised and accidental use of nuclear weapons and prevent their communities from nuclear terrorism. The following part of this chapter will suggest alternative measures for nuclear confidence-building between the two traditional South Asian strategic rivals.

### **Possible Alternatives**

The following discussion identifies a few important areas, which require a NCBMs initiative for accomplishing bilateral agreements to address both nuclear risks and a nuclear arms race between India and Pakistan. Some of these alternatives, of course, are normative and idealistic, and thereby may appear impractical in the current politically charged relations of India and Pakistan. Conversely, if the leaders of the two countries seriously commit to the notions of ‘minimum nuclear deterrence’ and moratorium on nuclear

testing, they are likely to pay heed to these issues and discuss mutually acceptable solutions.<sup>19</sup> The following possible alternatives are worth noting:

First, there is a need to increase the 'Strategic Warning Time' between India and Pakistan due to their geographical contiguity. The term 'Strategic Warning Time' denotes the time between the emergence of a nuclear threat and the ability to respond to it by the adversary. In the case of India and Pakistan, it is necessary to think of a reasonable interval, i.e. 40 minutes, so that a potentially disastrous situation can be averted and defused through dialogue. The solution to this can be found in putting a physical distance between the delivery vehicle and the warhead.<sup>20</sup> Both states would place de-alerted warheads in storage sites at some distance from their launch vehicles. They could allow the placing of neutral observers at those sites, with authority only to count what went in and what went out. The presence of neutral observers is important to neutralise the mistrust that the two countries have. The increase in warning time, certainly, will reduce the likelihood of nuclear danger.

Second, the NCBMs ought to focus on the construction of an agreement for non-deployment of nuclear weapons. Presently no side has deployed nuclear weapons. This status needs to be formalised through the conclusion of an agreement. This will be a tremendously positive development. Already India–Pakistan have crossed the state of non-weaponised deterrence by testing nuclear weapons in May 1998 and moving on to the stage of weaponised deterrence. Both States have also integrated their short- and medium-range nuclear- capable ballistic missiles into their respective armed forces. The deployment of ballistic missiles will enhance the danger of inadvertent nuclear use, particularly due to their geographical proximity and the short flight time of their missiles. i.e. 3 to 11 minutes.<sup>21</sup> The deployment of nuclear weapons and ballistic missiles will also compress the time for decision-making by national leaders and battlefield commanders to manoeuvre during a crisis. Moreover, the potential for theft of a nuclear weapon from a storage site remains, thereby increasing the likelihood of nuclear terrorism. The seizure of strategic missiles ready for use by terrorists can be apocalyptic.<sup>22</sup> Therefore, the non-deployment of nuclear weapons by India and Pakistan will be an effective strategy to forestall the possibility of nuclear terrorism. Indeed, it is critically important that India and Pakistan avoid going further down the nuclear road of building ready-for-use operational capabilities.<sup>23</sup>

Third, Indo–Pakistani NCBMs should include the creation of ‘Nuclear Risk Reduction Centres’ (NRRCs) in both countries. Effective communication is vital for threat reduction and monitoring. Kent L. Biringer has pointed out: ‘the process of managing missile possession in tense regions demands a reliable, secure, dedicated, and timely communications infrastructure.’<sup>24</sup> One of the positive developments in South Asia in this context was the agreement to establish a hotline to counter the accidental use of nuclear weapons in June 2004. The establishment of the hotline was immensely significant, however it would not totally eradicate the potential for unauthorised or accidental use of nuclear weapons. The two countries need to think far beyond the hotline and establish NRRCs in both capitals. This will facilitate more effective communication between the two countries. Michael Krepon points out that the ‘key element in Cold War nuclear risk reduction was the establishment of reliable lines of communication across borders, for both political and military leaders.’<sup>25</sup>

The Indo–Pakistani centres should supplement existing means of communication and provide direct, reliable, high-speed systems for the transmission of notifications and communications at government-to-government level. The centres will communicate by direct satellite links that can transmit rapidly full texts and graphics. The NRRCs can be manned by mixed groups of officials so that they can handle different types of scenarios. The centres will have communications capability very similar to – but separate from – the modernised ‘Hot Line,’ which is reserved for heads of government.

As the NRRCs will serve effective, exclusive and dedicated technical means of official communication, and the exchange of rapid, accurate and factual information, they will be able to help to prevent misperceptions and unintended reactions that could lead to an accidental or unintended escalation of tension and crisis. Furthermore, the NRRCs can also be used as means of verification of various NCMBs and agreements, which will enhance trust between the two countries. It might also be possible to include observers and inspectors to physically verify the authenticity of intelligence, which will increase the effectiveness of the centres. Put simply, NRRCs may provide an effective confidence-building and nuclear risk-reduction mechanism between India and Pakistan.<sup>26</sup>



Fourth, the NCBMs need to take into account the state of the deployment of conventional forces as well. The nuclear danger can be reduced through conventional stability. It is generally assumed that nuclear exchange between India and Pakistan is more likely through the escalation of a crisis or conventional conflict. A force limitation zone along the border will lower armament levels in forward positions and eliminate the threat of surprise attack, thereby greatly reducing the danger of miscalculation.<sup>27</sup> It is noteworthy that an agreement exists between India and Pakistan that prohibits military aircraft from flying within specified distances of the border, which is generally being observed by both sides. This can be furthered by creating a force limitation zone along the Indo–Pakistani border.

Fifth, an agreement on ‘Mutual Ban on Nuclear Exercises’ can be thought of as part of the Indo–Pakistani NCBMs. When states conduct their nuclear-related military exercises, it gives the impression that they would be making operational their nuclear weapons. During the summer of 2001, Indian military exercise Poorna Vijay (‘Complete Victory’) aroused many questions among the Pakistani policymakers. According to the Indians, the objective of the exercise was to evaluate concepts and practise battle procedures during offensive and defensive operations on the future battlefield against a nuclear backdrop. Islamabad viewed the exercise as an attempt by New Delhi to legitimise conventional war waged under a nuclear umbrella. In July 2002, Pakistan in reaction to the Indian exercise conducted a joint week-long war game. One of the important objectives of the war game was to enhance joint planning and explore ways and means of increasing Pakistan’s tactical planning capabilities. Importantly, the Strategic Plans Division (SPD) also participated in the nuclear-related war games.<sup>28</sup> This indicates that in the war game Pakistan brought nuclear factors into practical consideration.

Nuclear-related military exercises by India and Pakistan further endanger the regional strategic environment. These exercises do not only increase the importance of nuclear weapons in the military calculations of both states, but also promote a spiral of competition that usually manifests itself in an arms race, which enhances the likelihood of nuclear use in a future war. The Indo–Pakistani exercises, noted above, are likely to increase misperceptions and mistrust. Therefore, such nuclear related military exercises ought to be

avoided. In the meantime, the existing India–Pakistan agreement for restriction on certain military exercises should be updated and upgraded.

Sixth, one of the worrying nuclear scenarios in South Asia is the possible introduction of tactical nuclear weapons into the arsenals of India and Pakistan. The definition of ‘tactical’, or ‘sub-strategic,’ nuclear weapons is somewhat tenuous and can include many criteria, such as range, yield, target, national ownership, delivery vehicle and capability. Tactical nuclear weapons have smaller explosive power, and limited blast damage area measured in hundred of metres cause relatively low levels of casualties by comparison with strategic nuclear weapons. To be precise, their yields can be relatively low (0.1 kiloton), equal to those of the bombs dropped on Hiroshima and Nagasaki (15–20 kilotons), or very large (1 megaton).<sup>29</sup> Such weapons are intended for battlefield use against enemy forces, rather than against enemy cities or strategic nuclear forces. Tactical nuclear weapons include a broad array of devices, from so-called nuclear landmines and nuclear artillery shells to air-dropped or missile-launched nuclear warheads.

There are chances that India and Pakistan will deploy very low-yield nuclear weapons in the sub-kiloton or 1–2 kiloton range because of their apparent battlefield utility. This is likely because both have tested low-yield nuclear weapons. On 28 May 1998, for example, Pakistan conducted four tests of small/low yield weapons. The collective yield of these four weapons was 4–10 kilotons. India had also demonstrated such a capability through its sub-kiloton tests in May 1998. According to R. Chidambaram, India had developed tactical nuclear weapons.<sup>30</sup> If India and Pakistan were to use tactical nuclear weapons in the battlefield, it would have severe strategic consequences. Pakistan’s major industrial centres and populous cities are near to its eastern border. Moreover, the use of tactical nuclear weapons increases the possibility of escalation. In 1962, President Kennedy said, ‘The decision to use any kind of a nuclear weapon, even tactical ones, presents such a risk of getting out of control so quickly....’<sup>31</sup> The uncertainties associated with the employment of tactical nuclear weapons are genuine.

The smallness of tactical nuclear weapons increases their vulnerability to theft by terrorists. Even in the hands of state militaries, tactical nuclear weapons are more susceptible to unauthorised or accidental use than strategic weapons, as they are often deployed near the front line and they

can be fired by a soldier in the field without going through the stringent safety precautions that govern the launch of strategic nuclear weapons. P.R. Chari argues that ‘War-fighting requires tactical nuclear weapons which could be very destabilizing in the subcontinental scenario.’<sup>32</sup> Therefore, it is imperative that India and Pakistan negotiate a bilateral treaty for countering the tactical nuclear weapons threat. Of course such an agreement requires intrusive monitoring and verification, which makes it a difficult proposition in an India–Pakistan context. However, the dividends of such an agreement between India and Pakistan outweigh such barriers and are hence thinkable. The advantages and imperatives are so huge.

Seventh, New Delhi and Islamabad should give serious thought to a ‘Nuclear Data Exchange Agreement’ as a NCBM, primarily aimed at tackling the problem of nuclear terrorism. In the past decades, terrorist threats in South Asia have significantly increased. Compared to the past, the new trend in terrorism is different in at least three dimensions:

1. greater casualties;
2. growth of religious terrorism; and
3. the potential for nuclear, biological and chemical terrorism.<sup>33</sup>

Given this, the most serious threat to regional security is that a small portion of India or Pakistan’s nuclear stockpile might fall into the hands of terrorists. Therefore, India and Pakistan need to negotiate for a data exchange agreement involving a comprehensive inventory of all nuclear weapons and material in both countries for reducing the serious threat of nuclear terrorism.

Eighth, Indo–Pakistani NCBMS may include a regime that will focus on the ‘Qualitative Restraint’ of nuclear weapons development in two countries. Indeed, the best option for regional security is to cap, progressively reduce and eventually complete elimination of nuclear weapons. Since it is not a practical option given the current situation, what possibly can be done is to seriously pursue a minimalist deterrence, of course keeping in view the reality of nuclear asymmetry. According to P.R. Chari:

Pakistan needs to accept the fact that India’s nuclear capability has to be designed against Pakistan and China, just as India would have to accept that China’s nuclear capability must

configure to the United States and Russia. Strict parity would be unrealistic in the light of differing security perceptions and seeking this goal could lead to an unrestrained arms race.<sup>34</sup>

The geo-strategic environment of India and Pakistan also permits them to live with the first generation of nuclear weapons. This would mean that they would not require further nuclear weapons tests. In addition, minimum nuclear deterrence also allows them to have limited stockpiles of fissile materials. Thus, it will be extremely advantageous for regional security if India and Pakistan either join the international movement for CTBT and FMCT, or they make similar arrangements at regional level.<sup>35</sup>

Ninth, Indo–Pakistani NCBMs may include an agreement on bilateral monitoring. This will involve a system of monitoring of nuclear storage areas and nuclear facilities and the two countries will need to declare their nuclear storage sites and facilities and give permission for inspection. Technical monitoring of storage areas may involve the use of a number of sensors to detect activities in or around the nuclear facilities. Ground sensors such as seismic, magnetic or acoustic sensors could be used to detect movement around the boundary of the facilities or on access roads leading to the facilities. And then these data can be shared between the parties through radio, satellite, phone, Internet or other communication means.<sup>36</sup> Technical monitoring of sensitive facilities involves sensors such as door switches, motion sensors and electronic seals to detect entry or activity in the facility. The seals would indicate any incident of tampering with containers, monitoring equipment, or portions of the facility that have been closed and sealed. Moreover, the use of sensor-triggered video systems, which capture a digital image when another sensor is activated, could be used to better characterise any detected interior or exterior event.<sup>37</sup> Both India and Pakistan lack such technologies at this stage; however, assistance for this can be obtained from the developed countries.

## **Conclusion**

Relations between India and Pakistan traditionally have been based on a deep mistrust and fear. In both states the adversary is painted as black as possible. This kind of attitude have overshadowed the CBMs that New Delhi and Islamabad initiated from time to time. Instead of restoring confidence, the CBMs have been used by both states to take advantage of

each other. Thus, mutual trust has been conspicuously missing in their reconciliation endeavours. Moreover, the ongoing CBMs have failed to address the issues related to their military build-ups or strategic postures. Such a state of affairs has been rather conducive to non-state actors, who now pose serious challenges to the national interests of India and Pakistan.

The serious security challenges that India and Pakistan confront today make it imperative for the two states to move beyond the existing CBMs. Not doing so will be tantamount to maintaining a lose-lose situation. The possible alternatives discussed in this chapter may not be entirely successful given the state of India–Pakistan bilateral relationships, however they provide a leeway to avoid a looming nuclear arms race and potential nuclear dangers. Most importantly, they are significant in that they forestall the possible occurrence of nuclear terrorism.

1 New Delhi and Islamabad rejected UN Resolution 1172, which urged India and Pakistan in conjunction with other states that have not yet done so to become party to the NPT and the Comprehensive Test Ban Treaty (CTBT) without delay and without conditions. See United Nations Resolution 1172 (1998), adopted by the Security Council at its 3890th meeting on 6 June 1998. Available at <http://www.un.org/Docs/scres/1998/sres1172.htm>.

2 India and Pakistan have been perfecting their nuclear capable short- and medium-range ballistic missiles and cruise missiles. India has been developing Missile Defence Systems, which would destabilise the South Asian strategic equilibrium.

3 In simple terms, the stability/instability paradox states that by preventing total war or all-out war, the destructiveness of nuclear weapons seems to open the door to limited conflicts. The vulnerability/invulnerability paradox refers to the increased risks of unauthorised use, accidents and theft of nuclear assets that arise from attempts to secure them against pre-emptive strikes. The dependence/independence paradox refers to the inability of the feuding nuclear rivals to effectively manage crisis situations without the involvement of third parties. For an excellent discussion of the dilemmas posed by each of these three paradoxes see Michael Krepon, 'The Stability-Instability Paradox: Misperceptions and Escalation Control in South Asia,' in the *Stimson Center Report* (Washington, DC: Henry L. Stimson, May 2003). Scott D. Sagan, 'Perils of Proliferation,' *Asian Survey*, November 2001. Feroz Hassan Khan, 'The Independence-Dependence Paradox: Stability Dilemmas in South Asia,' *Arms Control Today*, October 2003.

4 New Delhi suspended the Composite Dialogue in the wake of the Mumbai terrorist attacks in November 2008. Prime Minister Syed Yousuf Raza Gilani and Prime Minister Manmohan Singh met on the sidelines of the 15th Non-Aligned Summit on 16 July 2009 and agreed to restart the dialogue process.

5 The International Atomic Energy Agency (IAEA) has categorised four potential nuclear security risks: the theft of a nuclear weapon; the acquisition of nuclear materials for the construction of nuclear explosive devices; the malicious use of radioactive sources – including the so-called 'dirty bomb;' and the radiological hazards caused by an attack on, or sabotage of, a facility or a transport vehicle. Disarmament, Non-proliferation and Science Department, Ministry of Foreign Affairs, ed., *Japan's Disarmament and Non-Proliferation Policy* (4th edition), March 2008, p. 86.

6 Moonis Ahmar, 'Rationalizing the Concept of Confidence-Building Measures,' in Moonis Ahmar, ed., *The Challenge of Confidence-Building in South Asia* (New Delhi: Har-Anand Publications Pvt. Ltd., 2001), pp. 39–40.

7 P.R. Chari, 'Nuclear Restraint, Nuclear Risk Reduction, and the Security-Insecurity Paradox in South Asia,' in Michael Krepon and Chris Gagné, eds., *The Stability-Instability Paradox: Nuclear Weapons and Brinkmanship in South Asia*, Report 38 (Washington, DC: The Stimson Center, July 2001), p. 32.

8 Pervaiz Iqbal Cheema, 'CBMs and South Asia,' in Dipankar Banerjee, ed., *Confidence Building Measures in South Asia* (Colombo: Regional Centre for Strategic Studies, September 1999), p. 31.

9 Kanti Bajpai, 'CBMs – Contexts, Achievements, Functions,' in Dipankar Banerjee, ed., *Confidence Building Measures in South Asia*, p. 9.

10 The détente between the United States and the former Soviet Union/Russia was an outcome of CBMs between the Russians and Americans. These CBMs assisted in constituting the Strategic Arms Limitation Treaty, the Strategic Arms Reduction Treaty, START I and II, the Anti-Ballistic Missile Treaty of 1972 at the bilateral level between the superpowers; the Treaty on the Elimination of Intermediate-Range and Shorter Range Missiles (ground-launched missiles with a range of 500–5,500 km); the Partial Test Ban Treaty 1963, the Nuclear Non-Proliferation Treaty of 1970, and the Outer Space Treaty of 1967, at multinational or international level in international politics.

- 11 The Arms Control Association, *Arms Control and National Security; An Introduction* (Washington, DC: The Arms Control Association, 1989), p. 10.
- 12 Jozef Goldblat, *Arms Control: The New Guide to Negotiations and Agreements* (London: Sage, 2003), p. 3.
- 13 Colin S. Gray, *Weapons Don't Make War: Policy, Strategy, and Military Technology* (Kansas: University Press Kansas, 1993), p. 122.
- 14 Talat Masood, 'Confidence-Building Measures: Concepts and Application,' in Moonis Ahmar, ed., *The Challenge of Confidence-Building in South Asia*, p. 30.
- 15 Zafar Nawaz Jaspal, 'Indo-US Nuclear Deal: Altering Global Nuclear Order,' *Strategic Studies*, vol. XXVII, nos. 2 and 3 (Summer and Autumn 2008), p. 23.
- 16 On 15 February 1975 Munir A. Khan obtained approval for a \$450 million nuclear weapons programme from Prime Minister Bhutto. This plan included: uranium refining and conversion (UF6), the production complex at BC-IR at Dera-Ghazi Khan; a centrifuge plant at Kahuta; a nuclear weapon design programme in the PAEC. Speeches were delivered at the Memorial Reference held on 28 April 2007 in Islamabad on the eighth anniversary of the death of Mr Munir Ahmed Khan. See also *Nawa-i-Waqt* (Urdu newspaper) Islamabad, 29 April 2007.
- 17 Abdul Sattar, *Pakistan's Foreign Policy 1947-2005: A Concise History* (Karachi: Oxford University Press, 2007), p. 148.
- 18 'Text of Document signed at Lahore,' *Dawn*, 22 February 1999. Text of the Lahore Declaration, 21 February 1999. Available at <http://www.ipcs.org/documents/1999/1-jan-mar.htm>. See also Chris Gagné, 'Nuclear Risk Reduction in South Asia: Building on Common Ground,' in Michael Krepon and Chris Gagné, eds., *The Stability-Instability Paradox: Nuclear Weapons and Brinkmanship in South Asia*, Report No. 38 (Washington, DC: The Henry L. Stimson Center, June 2001), p. 52. The MOU signed in Lahore was the result of the nine months-long parallel diplomatic dialogue facilitated by the US, which brought the two sides to the negotiating tables. The US initiative primarily was to encourage India and Pakistan to take five steps to help avoid a destabilising nuclear and missile competition, reduce regional tension and bolster global non-proliferation. The main contours of the Talbott Mission broadly were: a) declaring a voluntary moratorium on further testing; b) further refraining from producing more fissile material; c) observing a restraint in the development and deployment of missiles and aircraft capable of carrying weapons of mass destruction; d) tightening export controls on sensitive material and technology; and e) finally engaging in a direct, high-level, frequent and, above all, productive dialogue.
- 19 See the literature on the nuclear doctrines of India and Pakistan.
- 20 Shaukat Qadir, 'Op-ed: Nuclear South Asia: Reducing Risks,' *Daily Times*, 11 May 2002. Available at <http://www.dailytimes.com.pk/default.asp?date=5/11/02>.
- 21 Pakistan's geographical narrowness or lack of strategic depth and the Indian commitment to introduce more sophisticated nuclear-capable delivery systems, like cruise missiles and ballistic missile defence systems, undermine Pakistan's security, consequently limiting its choices during a crisis.
- 22 Dr Bruce G. Blair, 'The New Nuclear Threat,' *Daily Times*, 5 May 2003.
- 23 India has declared that China's specific nuclear deterrent compels her to deploy her nuclear capable missiles or to operationalise her nuclear capabilities. But many analysts, for example Nazir Kamal, believe that 'India does not need to nuclearise against China. China has a no-first-use policy and a conventional conflict between them, as in the past, is most likely to be limited in scope, both geographically and politically. They are also well matched along the Himalayan frontiers. Furthermore, the danger of conflict between them is much lower than between India and Pakistan, as they have moved towards a significant reduction of border tension over the past decade.' See Nazir Kamal, 'Pakistani Perceptions and Prospects of Reducing the Nuclear Danger in South Asia,'

Cooperative Monitoring Centre Occasional Paper/6 (US: Sandia National Laboratories, January 1991).

24 Kent L. Biringer, 'Missile Threat Reduction and Monitoring in South Asia,' in Michael Krepon and Chris Gagné, eds., *The Stability–Instability Paradox*, p. 68.

25 Michael Krepon, 'Nuclear Risk Reduction: Is Cold War Experience Applicable to Southern Asia,' in Michael Krepon and Chris Gagné, eds., *The Stability–Instability Paradox*, p. 6.

26 Colonel Rafi uz Zaman Khan, 'Pakistan and India: Can NRRCs Help Strengthen Peace?' Occasional Paper No. 49 (Washington, DC: The Henry L. Stimson Center, December 2002). Available at <http://www.stimson.org/southasia/pdf/nrrcsouthasia.pdf>.

27 Nazir Kamal, 'Pakistani Perceptions and Prospects of Reducing the Nuclear Danger in South Asia.'

28 Dr Ayesha Siddiqa-Aga, 'War-Gaming in a Nuclear Environment,' *The Friday Times*, 26 July–1 August 1, 2002. Available at <http://www.thefridaytimes.com/news6a.htm>.

29 Alistair Millar, 'The Pressing Need for Tactical Nuclear Weapons Control,' *Arms Control Today*, May 2002. Available at [http://www.armscontrol.org/act/2002\\_05/millarmay02.asp](http://www.armscontrol.org/act/2002_05/millarmay02.asp).

30 Brahma Chellaney, 'India's Nuclear Planning, Force Structure, Doctrine and Arms Control Posture,' in Dr Digumarti Bhaskara Rao, ed., *Nuclear Materials Issues and Concerns*, vol. 11 (New Delhi: Discovery Publishing House, 2001), p. 997.

31 Stansfield Turner, 'The Specter of Nuclear Proliferation,' *Security Dialogue*, vol. 29(3) (SAGE Publications, 1998), p. 296.

32 P.R. Chari, 'Nuclear Restraint, Nuclear Risk Reduction, and the Security–Insecurity Paradox in South Asia,' in Michael Krepon and Chris Gagné, eds., *The Stability–Instability Paradox*, p. 32.

33 Zafar Nawaz Jaspal, 'WMD Terrorism and Pakistan: Counterterrorism,' *Defense Against Terrorism Review*, vol. 1, no. 2 (Fall 2008), pp. 103–13.

34 *Ibid.*, pp. 32–33.

35 Both India and Pakistan have declared a moratorium on nuclear tests and have said that a test ban would not impinge on their security, as the tests conducted in May 1998 have given them an assured capability. However, recently it was reported in the newspapers that India had been planning to conduct some more nuclear tests.

36 Kent L. Biringer, 'Missile Threat Reduction and Monitoring in South Asia,' in Michael Krepon and Chris Gagné, eds., *The Stability–Instability Paradox*, p. 73.

37 *Ibid.*



# Chapter 11

## Addressing Nuclear Dangers: Confidence-building between India, China and Pakistan\*

Dipankar Banerjee

### Introduction

Nuclear dangers in Asia today involve three nuclear weapons powers, of which only one, China, is an acknowledged member of the nuclear club under the Nuclear Non-Proliferation Treaty (NPT). The other two, India and Pakistan, are outside the NPT but are considered 'states with nuclear weapons.' India's status has been 'recognised' through the India–US civil nuclear agreement, which later came to be acknowledged by the Nuclear Suppliers Group (NSG) when it lifted restrictions on nuclear commerce with it in 2008. Pakistan's nuclear weapons state status still remains out of this fold.

There are two other states in Asia with an ambiguous status, North Korea and Iran. Pyongyang, though a member of the NPT, withdrew from the Treaty and then conducted two nuclear weapons tests in 2006 and 2009 and has continued to upgrade its missile capabilities.<sup>1</sup> Iran has had an active uranium enrichment programme now for several years.<sup>2</sup> Should North Korea persist in its weapons acquisition and Iran be able to build a nuclear weapon, there will be serious repercussions in their respective regions. Indeed, Asia has emerged the beginning of the twenty-first century as a volatile nuclearised region.

The question of nuclear dangers should be patently obvious to any sane person. Use of a nuclear weapon or device, by a state or non-state actor, for whatever objective, will not only be a grave policy failure, it will have horrific short- and long-term consequences. Indeed, no justification of deterrence or of assuring national security can stand up to scrutiny against

the horrendous consequences that will result if nuclear weapons are used. Against such a backdrop, a global initiative towards nuclear weapons elimination is slowly gathering pace.<sup>3</sup> For the first time many world leaders, including those from countries with nuclear weapons, have seriously raised this as a real and practical possibility.<sup>4</sup> The Nuclear Security Summit hosted by President Barrack Obama in Washington, DC in April 2010, a month before the NPT Review Conference, was a major attempt in this direction.<sup>5</sup>

Despite good intentions, nuclear disarmament is a long-term proposition, hence in the meantime it is important to take steps to reduce nuclear dangers. In this context nuclear confidence-building measures (CBMs) can play an important role. The objective of this chapter is to explain the rationale, essence and practicality of tripartite measures to reduce nuclear dangers and undertake CBMs involving China, India and Pakistan. At this stage, suffice it to note that although standard analysis of nuclear risk reduction or CBMs discusses South Asia in terms of India and Pakistan, I posit that without China's involvement, any initiative is likely to be futile.

This chapter proceeds in the following manner. First, it briefly discusses the reasons why China, India and Pakistan built nuclear weapons and then adumbrates their nuclear policies and doctrines. It is important to discuss their rationale in going nuclear, and their doctrines, in order to fully ascertain the essence and practicality of CBMs. Without an understanding of their security concerns, perceptions, interests and postures, it is not possible to discuss why and how CBMs can be pursued. Second, there will be a quick review of existing CBMs between the three countries. Third, the chapter examines conditions of 'no first use' and its possibilities as a CBM. Fourth, it examines three issues that are critical for reducing nuclear dangers in the region. They are: the Comprehensive Test Ban Treaty (CTBT), the Fissile Material Control Treaty (FMCT) and terrorism. The chapter concludes by establishing that transparency of holdings and doctrines, combined with a 'no first use' policy are essential for addressing nuclear dangers in southern Asia.

## **Motivations for Acquisition**

### *China*

China became a nuclear weapons power with its first test of a fission device at Lop Nor in Xinjiang on 16 October 1964. China's motivation for developing a nuclear weapons capability was, in addition to other factors, the perceived threat of a nuclear attack by the US. Beijing claimed that there were at least three clear warnings in the 1950s, which prompted it to go nuclear.<sup>6</sup> While its nuclear weapons programme began with Soviet assistance, this help was soon withdrawn and China went ahead essentially on its own from about 1959.<sup>7</sup> In the late 1960s the worsening relations between China and the Soviet Union led to the Ussuri River incident.<sup>8</sup> After this it became essential for China to adopt an active defensive posture vis-à-vis Moscow.<sup>9</sup> The large concentration of Soviet armoured formations in Mongolia with their significant military offensive capabilities required adequate military preparedness from China's standpoint. It is in this context that China revived its people's war doctrine and provided it with a nuclear dimension, which remained its nuclear policy under Mao. Under this, China would be prepared to counter a conventional attack and respond by resorting to the use of significant numbers of atomic demolition munitions (ADMs) planted on the advancing routes of Soviet armoured forces. Today, China sees no major military threat from Russia that would require a level of nuclear contingency planning. Its sole focus in its nuclear deterrence posture is determined by US capability and policy.<sup>10</sup>

## *India*

India carried out a 'peaceful nuclear explosion' in May 1974, although Raja Ramanna, the principal scientist behind the test and in the late 1980s a Minister of State for Defence in the union cabinet, admitted in 1997 that, 'The Pokhran test was a bomb, I can tell you now – an explosion is an explosion, a gun is a gun, whether you shoot at someone or shoot at the ground – I just want to make clear that the test was not all that peaceful.'<sup>11</sup> India became a nuclear weapons power only 24 years later in May 1998 with five nuclear tests of varying yields.

India began a nuclear energy programme after independence without entirely ruling out the possibility of developing a nuclear explosive capability should the need arise.<sup>12</sup> China's nuclear test in October 1964 did not lead to a decision to acquire nuclear weapons, even though serious discussions were held at many levels to explore this possibility. This was in

spite of the fact that Chinese aggression in 1962, barely two years earlier, had seriously altered India's overall threat perceptions. Several reasons can be attributed to New Delhi's policy course, of course none with any absolute certainty. A partial test ban treaty had just been signed and there were moves towards a non-proliferation treaty on which there were high expectations.<sup>13</sup> Also, there were serious doubts whether India had the necessary fissile material or could produce these at short notice, should a decision be taken at the appropriate level to conduct a test. It is a moot point whether India could indeed have tested a nuclear weapon at the time; a test would of course have legitimised India's position as a nuclear weapons power under the NPT. The fact remains that no serious step was undertaken at the time to develop a nuclear explosion capability even though scientific activities on the acquisition of nuclear technology were expedited.

India's nuclear explosion in 1974 had two possible major motivations. One was to divert attention from the severe economic crisis and loss of popularity so soon after the victorious Bangladesh War in 1971. This was accompanied by Jay Prakash Narayan's call for all-India social action and the launching of the Nav Nirman Sena (New Construction Force) beginning in Gujarat and spreading to the rest of the country, leading to the electoral laws in that state in early 1974.<sup>14</sup> From February 1974 the country faced the largest industrial action in history with 17 million railway workers threatening to launch a country-wide strike that could paralyse the nation.<sup>15</sup> Even though this was put down with force and great firmness, instability and economic downturn continued, which would lead to the declaration of a nationwide emergency a year later, proving perhaps that the Pokhran explosion did little to impact positively on support for the government. The other motivation was pressure from the Indian scientific community that a test was necessary to prove that the experiments undertaken would actually work. Raj Chengappa explains how serious work on a nuclear weapon design had begun only at the end of 1967 and by 1971 much of the work was accomplished. But the scientists were both eager and willing to demonstrate that they had indeed mastered the technology.<sup>16</sup>

The second set of nuclear tests was conducted by India in May 1998. For this the Bharatiya Janata Party (BJP)-led government apparently reasoned that China was the main factor. In early 1998, George Fernandes, the Defence Minister, though belonging to the Janata Dal (a coalition partner), asserted several times that China constituted the 'potential threat number

one' to India.<sup>17</sup> This was corroborated by Prime Minister Atal Behari Vajpayee when he wrote to US president Clinton identifying China as the principal reason for undertaking the nuclear tests.<sup>18</sup> Therefore, the centrality of China in Indian strategic thinking is clearly evident.

### ***Pakistan***

Pakistan's nuclear weapons programme was initiated in January 1972 by President Zulfikar Ali Bhutto in response to the loss of Bangladesh and not, as some have suggested, after India's nuclear test in 1974.<sup>19</sup> Therefore, quite understandably, this had a security imperative as well as a clear India focus. It attracted huge attention in India from the late 1970s both at the governmental level and beyond, as strategic literature from the early 1980s suggests.<sup>20</sup> The January 1987 interview by Kuldip Nayar with the Pakistani nuclear scientist A.Q. Khan was seen in India then as the final proof of Islamabad's having acquired a nuclear weapons capability.<sup>21</sup> Notwithstanding the assertion of the Vajpayee government that China was the main threat, no government in New Delhi could ever disregard a threat from a Pakistani nuclear capability. Both in terms of an immediate tactical challenge and as a response to a potential aggressor, this always loomed large in India's security perception. Recent evidence suggests that China had provided clandestine assistance to build Pakistan's nuclear arsenal, including the discovery that Beijing in the 1980s tested a Pakistani nuclear weapon on its soil.<sup>22</sup> Indeed, China and Pakistan have constituted dual threats since the 1960s, this being further compounded by the collusion of China with Pakistan's nuclear weapons and missile development programme.

Pakistan has consistently claimed India to be the sole rationale for acquiring its nuclear weapons capability. Its missile development is solely guided by the logic of targeting India. Names given to its missile systems are India-centric and its nuclear arsenal is shaped by its need to ensure an assured deterrence against India. Its policy towards signing the CTBT and its approach towards the FMCT are India-focussed. It is expected that should India accede to the CTBT Pakistan will follow suit. On the FMCT, Pakistan's recent stand appears to be solely directed to ensure that India does not have an advantage in fissile material stockpiling.<sup>23</sup>

## **Nuclear Policies and Doctrines**

### ***Pakistan***

Pakistan's nuclear doctrine is based on its perception of conventional arms asymmetry vis-à-vis India. This is both real and unexceptional given the power difference between the two sides, but is often exaggerated as is natural in the case of paired adversaries. This exaggeration is derived from the near total absence of trust and minimum interactions between the two militaries.

The lack of strategic depth and its limited ability to launch an effective conventional counteroffensive against India make Pakistan heavily reliant on a posture of 'first use.' Pakistanis have what Indians call 'red lines' (imaginary lines that are presumed to lie along and close to the Indo-Pak border), the apparent transgressing of which by India would trigger a nuclear riposte by Pakistan. The specificities of 'red lines' are not very clear and a senior Pakistani military officer said that such a definition did not exist in the nuclear doctrine of Pakistan.<sup>24</sup> Yet the point remains that the existence of so-called nuclear 'Red Lines' remains an important issue in the thinking within the Indian military and may, therefore, have to be considered seriously in any discussion on confidence-building between India and Pakistan.

Another possible scenario is what has been asserted by Professor Stephen Cohen, a US expert on the Pakistan Army, as an 'option-enhancing policy.'<sup>25</sup> According to him this would evolve in four stages as follows:

1. A public or private warning.
2. A demonstration explosion of a small nuclear weapon on Pakistani soil.
3. The use of [a] nuclear weapon[s] on Pakistani soil against Indian attacking forces.
4. Finally, the use of [a] nuclear weapon[s] against critical but purely military targets on Indian soil. This may perhaps be in thinly populated areas in the desert or semi-desert, causing the least collateral damage.

These hypothetical assumptions, however, may not hold in reality because of the rapidity of present-day conventional military operations. The Indian 'Cold Start' doctrine substantially enhances Pakistani anxiety.<sup>26</sup> This doctrine is formulated and designed to effect immediate punishment following a terrorist attack in India by a Pakistan-based terrorist group. This doctrine, however, does not sufficiently take into account a Pakistani response. The danger is that Pakistan may respond to such an Indian operation by early use of nuclear weapons against an advancing Indian army.

After the attack on the Indian Parliament in December 2001 and after the Mumbai terrorist attack in November 2008, India felt sufficiently aggrieved to seriously consider a military response. The entire Indian Armed Forces were mobilised and deployed after the 2001 incident and after the Mumbai attack options for aerial attacks were possibly seriously considered.<sup>27</sup> That these developments did not lead to military conflict was a testimony to the political wisdom of the leadership of both countries. Yet the possibility of a nuclear conflict was unacceptably high.<sup>28</sup>

A doctrine of nuclear 'first use' has a number of problems and inherent uncertainties. First, it may lead to nuclear use by mistake or even by an imaginary attack, neither of which can always be discerned clearly in the fog of war. Second, such a posture requires an alert strategy that demands mated or near-mated nuclear weapons with delivery vehicles, effective and instant communications within all levels of decision-making and a capability of rapid retaliation. It also requires an appropriate command and control structure and a high state of preparedness of the nuclear arsenal. The US retained this option all through the Cold War period and even after its end because, as it claimed, such a policy enhances alliance solidarity and provides credible 'extended deterrence.' But for a developing country like Pakistan with limited resources and political instability, the 'first use' doctrine is destabilising. Besides, Pakistan has no clearly enumerated nuclear doctrine. What it actually has is a document on National Command Authority, which attempts to demonstrate that Pakistan's nuclear weapons are under civilian control. Pakistan has also had only one Commander of the Strategic Plans Division in charge of its nuclear weapons since inception, Lt Gen Khalid Kidwai. This makes Pakistan's nuclear doctrine personality-oriented rather than doctrinally driven.

## *China*

China's nuclear doctrine and strategy have been best articulated in a comprehensive Defence White Paper released in 2006.<sup>29</sup> Claiming to pursue a policy entirely of self-defence, China states that its fundamental goal is to deter other countries from using or threatening to use nuclear weapons. It elaborates:

*Its fundamental goal is to deter other countries from using or threatening to use nuclear weapons against China. China remains firmly committed to the policy of no first use of nuclear weapons at any time and under any circumstances. It unconditionally undertakes not to use or threaten to use nuclear weapons against non-nuclear-weapon states or nuclear-weapon-free zones, and stands for the comprehensive prohibition and complete elimination of nuclear weapons. China upholds the principles of counterattack in self-defence ... and aims at building a lean and effective nuclear force capable of meeting national security needs ... maintains a credible nuclear deterrent force. China's nuclear force is under the direct command of the Central Military Commission (CMC) ... It has never entered into and will never enter into a nuclear arms race with any other country.*<sup>30</sup>

According to Chinese strategic experts two issues could possibly lead to a change in the above policy line. One is the development of Ballistic Missile Defence by the USA. The other is weaponisation of space and non-adherence to the Preventing an Arms Race in Outer Space (PAROS) Treaty. China welcomes the resumption of dialogue on further reduction of strategic arsenals by the US and Russia. China's nuclear doctrine appears to follow a retaliation strategy akin to a delayed second strike. This means that China will retaliate after withstanding a first nuclear strike, rather than attempt either a launch under attack (LUA) or a launch-on-warning (LOW)-type strategy.<sup>31</sup>

The Defence White Paper, though authoritative in terms of articulation of China's nuclear policy and doctrine, cannot be taken at face value, particularly on issues of strategy and weapons use. Differing interpretations have often been expressed by eminent scholars in the West and sometimes even by Chinese scholars. Some international experts have suggested that China may indeed be moving towards a 'limited deterrence' strategy, which would include a certain level of coercive capability as well as a more aggressive policy. In this context Jiang Zemin's address to the Central Military Commission in July 2000 is often quoted, where he outlined the following 'Five Musts' on nuclear weapons:



- China must own strategic nuclear weapons of a definite quality and quantity in order to ensure national security.
- China must guarantee the safety of strategic nuclear bases and prevent against the loss of combat effectiveness from attacks and destruction by hostile countries.
- China must ensure that its strategic nuclear weapons are at a high degree of war preparedness.
- When an aggressor launches a nuclear attack against China, China must be able to launch nuclear counterattack and nuclear re-attack against the aggressor.
- China must pay attention to the global situation of strategic balance and stability and, when there are changes in the situation, adjust its strategic nuclear weapons development strategy in a timely manner.<sup>32</sup>

Therefore, China's White Paper may give an impression of a defensive nuclear policy and doctrine, but Beijing might behave differently in actual situations.

## *India*

India's nuclear doctrine is encapsulated in two documents. The first is the Draft Nuclear Doctrine (DND) prepared by the newly created National Security Advisory Board (NSAB) after the nuclear weapons tests and released by the first National Security Adviser (NSA), Brajesh Mishra, on 19 August 1999.<sup>33</sup> K. Subrahmanyam, India's leading strategic thinker, was the Convener of the first NSAB and the document clearly bears his stamp. The second is a one-page statement of official policy released directly by the National Security Council Secretariat after its approval by the Cabinet Committee on Security on 4 January 2003.<sup>34</sup>

The 1999 NSAB document posits the nuclear doctrine to be one of 'minimum credible nuclear deterrence' and spells out its parameters. Four key elements characterise the doctrine:

- First is that India's nuclear weapons are meant to deter nuclear weapons threat/use and not conventional weapons or conventional war. The objective is to deter and not fight, hence the emphasis is on 'minimum' and as a policy it is entirely defensive in nature.

- Second is a clear articulation of No First Use (NFU) and hence it emphasises that ‘[t]he 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.’
- Third is that the doctrine is entirely in harmony with the principle of self-defence enshrined in the UN Charter under Article 51 as, ‘the inherent right of individual or collective self-defence if an armed attack occurs.’
- Finally, the doctrine emphasises that global, verifiable and non-discriminatory nuclear disarmament would remain a national security objective, thus emphasising once again India’s commitment to disarmament.

On 4 January 2003, however, the policy was modified in a subtle but significant way. After reviewing the progress of the operationalisation of the nuclear doctrine, the Cabinet Committee on Security noted that a nuclear attack on not just Indian territory but on Indian forces anywhere would invite a response designed to inflict unacceptable damage. This was to deter the possibility of a WMD – chemical, biological and nuclear – attack on the Indian armed forces anywhere, even in UN peacekeeping operations.

## **Confidence-building Measures**

The above discussion on the causes of nuclear weapons acquisition of the three countries and the deterrent role assigned to nuclear weapons by them highlight the fact that the nuclear dynamics in the region are interlinked and cannot be addressed without taking the three countries into proper consideration. No effort so far has been made towards developing risk reduction or nuclear CBMs among these three countries. Even though some nuclear CBMs exist between India and Pakistan, there are none between India and China (however some non-nuclear CBMs do exist). One of the reasons for this is China’s refusal to recognise the nuclear status of India and Pakistan. Following the nuclear tests of India and Pakistan, Beijing’s

diplomatic efforts focussed on trying to roll back the nuclear capabilities of the two countries.

Furthermore, mutually exclusive security perceptions and postures of the three countries limit the prospects for confidence-building between them. India has security concerns that derive from both China and Pakistan. It has territorial disputes with both that have traditionally determined the course of its bilateral relations with each. New Delhi's increasing strategic relationship with the USA is a growing concern in both China and Pakistan. On the other hand, Pakistan has a near-alliance relationship with China, which is a long-standing concern in New Delhi. These varied and complex security relations make CBMs in the nuclear field a difficult proposition.

However, a number of developments in recent years have raised the prospects for nuclear CBMs. Given the rising tide of terrorism in the region, it is in everyone's interest to work together so that nuclear weapons do not fall into the hands of terrorist groups. Furthermore, Beijing has reluctantly accepted the nuclear status of India with its support for the waiver that was extended to India in the NSG. China's acceptance of India's (by implication Pakistan's) nuclear status has paved the way for two Track 2-level meetings under the auspices of the Institute of Peace and Conflict Studies, New Delhi, in December 2008 at Colombo and in August 2009 at Shanghai to address issues relating to nuclear weapons among these three countries. While no document on this has yet been published, this chapter highlights issues that emerged in those two important meetings. It is hoped that this limited process will in turn facilitate other initiatives towards confidence-building and allow serious discussions in the future to address issues of nuclear weapons elimination.

### ***CBMs Between India and Pakistan***

A number of CBMs actually exist between India and Pakistan, some specifically in the nuclear domain. The first of these is the establishment of Annual Notification of Nuclear Facilities, a measure under which lists of nuclear installations are exchanged every year. In the Lahore summit in February 1999 a number of additional CBMs were agreed upon by both sides and are listed below:

- Providing each other advance notification of ballistic missile tests and concluding a bilateral agreement for the same.
- Undertaking national measures to reduce the risks of accidental or unauthorised use of nuclear weapons, notifying each other of any accident and establishing a communications mechanism for this purpose.
- Continuing their unilateral moratorium on conducting further nuclear tests.
- Reviewing the implementation of existing CBMs; and reviewing the existing communication links in order to upgrade and improve them.<sup>35</sup>

Before substantive discussions could be initiated for their implementation the Kargil conflict broke out, which put all CBMs on hold. Some measures were undertaken subsequently and a communication link between air forces was established. Even though this might be considered as progress, many problems still remained. In 2002, the two countries agreed to notify each other before ballistic missile-testing, but they failed to follow the agreement properly.

When the composite dialogue process resumed after a lapse of five years in 2004, nuclear confidence-building was then discussed during two days in June at the Additional Secretary level. India referred to its proposal of No First Use of nuclear weapons and asked Pakistan to subscribe to this doctrine. As anticipated, Pakistan reiterated its proposal for strategic restraint both on nuclear and conventional fronts. Islamabad suggested India should exercise restraint in the purchase of conventional weapons. The question of conventional forces asymmetry will perhaps invariably figure in any discussion of military confidence-building and should perhaps be addressed appropriately. Yet to link it with nuclear weapons issues may rightly be seen as putting another spanner in the works. Asymmetry in conventional capabilities is a reality and both have security concerns other than with each other, which will have to be factored in. For example, Pakistan has to consider the threats from Afghanistan and extremist terrorist forces. India has major commitments including deployment of sufficient conventional forces to safeguard its undemarcated borders in the north, as well as on its eastern frontiers, and internal instabilities within the country. New Delhi particularly has to take the China factor into account in its

security calculations. China shares borders with many countries and with some it has border disputes. Moreover, it has concerns deriving from the USA. Therefore, the issue of conventionalities should not be mixed up with nuclear issues.

### ***CBMs Between India and China***

General CBMs, excluding the nuclear domain, between India and China have a more positive history. Though the border issue remains unresolved, incremental measures and a step-by-step approach over the decades have helped to make substantive progress in the conflict avoidance of the two countries. Of particular relevance are the 1993 Peace and Tranquillity Agreement and the 1996 agreement to enhance military CBMs. Even though the latter remains unimplemented in full, it is a sign of hope. Now, flag meetings between the border forces of the two countries are held in four different locations three to four times each year.<sup>36</sup> These meetings allow friendly contact between deployed military commanders, resolution of minor issues if and when they arise, and they generate a degree of friendliness and cordiality, which make significant contribution to overall interstate relations. As a sign of a positive trend, the two countries agreed to establish a hotline between the prime minister of India and the president of China in a meeting in New Delhi on 8 August 2009. Though details of this agreement are yet to be worked out, the development will be a major step forward in defusing future crises.

Against this gradually evolving positive backdrop, the proposal of India's foreign minister, Natwar Singh, in 2004 is significant; Singh proposed to formulate a common nuclear doctrine to be developed jointly by India, Pakistan and China.<sup>37</sup> While it has to be accepted that military doctrines are intensely national and, therefore, evolving common policies are likely to pose many fundamental problems, the idea itself is attractive and should not be dismissed lightly, as was done at the time.

China and India are committed to maintaining their own credible minimum nuclear deterrent and Pakistan probably will not face great difficulty in maintaining such a capability. On the issue of 'no first use,' both China and India entirely agree. Therefore, it is entirely possible to build common ground on those issues, in particular on a common nuclear doctrine. Of course on both issues much detailed discussion will be required

at all levels to give concrete shape to these ideas. The definition of 'minimum' will vary for each country; but it would not make much difference as long as arsenals remain in the low hundreds. If the strategic arms reduction dialogue between the US and Russia succeeds in bringing down their arsenals below the 1,000 level and if they agree to drastically reduce their delivery means, there will then be no case for China, India or Pakistan to consider large arsenals. Therefore, there are grounds on which the three countries can work together to mitigate their security concerns.

In reducing nuclear danger, Track 2 dialogue between non-governmental entities of the three countries can play a significant role. Against such a backdrop, CBMs received close attention in the trilateral Track 2 meetings held under the auspices of the IPCS at Colombo and Shanghai in December 2008 and August 2009 respectively. Some important conclusions of the meetings were:

- There was unanimity particularly in developing concrete CBMs in the nuclear area.
- While measures are important and should be negotiated carefully, their implementation is affected by the absence of political will and the state of bilateral relationship.
- While Pakistan always raises the Kashmir issue as a fundamental irritant and obstacle, Indians refer to continued cross-border terrorism as the principal hurdle.
- In both India and China there was an agreement that the border issue needs to be resolved at an early date to provide the necessary momentum to furthering mutual relations. While controlling the media is not a realistic option, it was noted that the adverse and often ill-founded comments of each other's media, one accusing the other of aggressive designs or provocative actions, do not help the cause of improving relations.
- Finally, both sides have agreed to work towards innovative measures to build confidence, through greater people-to-people contact, increasing trade, more frequent dialogue between think tanks and increasing contacts between students, artists and the media.

Such non-official advocacy can play an important role in raising consciousness within the civil societies of the three countries, which in turn

may contribute to government policymaking for nuclear confidence-building.

### ***Important Issues to Reduce Nuclear Dangers***

*Comprehensive Test Ban Treaty and Fissile Missile Cut-off Treaty* It is likely that these issues will move up in the agenda of global politics in the coming days. And these issues are important in the context of regional confidence-building and nuclear risk reduction. If policies of the three countries are aligned, it will have a significant impact on the road to a common nuclear doctrine.

It is possible that President Obama will place the CTBT for ratification to the Senate early in his presidential tenure. If this is approved by the US Senate and ratified, this will probably be followed by an early ratification by China. If this happens, pressure on the hold-out states, notably India and Pakistan, will mount and they probably will fall in line. Although India is yet to make up its mind on the issue, the question remains, will New Delhi be able to resist this pressure? Should India sign and ratify the CTBT and Pakistan does the same, as it has often professed to follow India's suit on this issue, it will be a powerful factor in limiting the development of new bombs and hence will affect the size of their respective arsenals, in turn helping in the reduction of nuclear danger in the region.

The other important issue that has significant implications for nuclear risk reduction is the FMCT. If the CTBT is ratified by the US Senate, the FMCT will feature prominently in the Conference on Disarmament in Geneva. In this regard process has been initiated to begin negotiations on the treaty at the beginning of 2010. An FMCT will basically affect India and Pakistan and not others. All other nuclear weapons states have larger stockpiles of fissile material than these two countries and hence they will be less affected if an FMCT is formalised. Even China is believed to have a stockpile, which will allow a quadrupling of its current level of warheads. Therefore, a quick finalisation of the FMCT may well lead to a capping of the current nuclear weapons capability of India and Pakistan. This may not easily be acceptable to the military in either country, but it will act as a powerful brake on the size of their nuclear arsenals. This will be useful in the initiation of further nuclear CBMS and nuclear danger reduction in the region.

*Nuclear weapons and non-state actors* Another important factor that poses enormous nuclear danger is nuclear weapons in the hands of non-state actors. Three recent authoritative studies have drawn attention to this danger.<sup>38</sup> The dangers are real and simulation game exercises in the US and India have recently concluded the possibility of nuclear use by terrorists. This possibility raises some fundamental questions about nuclear deterrence. Nuclear weapons in the past were justified as providing the necessary deterrence in coupled adversarial relationships even in alliance systems and, hence, this was a powerful argument against their non-use. This could be fundamentally altered if non-state terrorist actors were ever to get possession of these dangerous weapons. No deterrence would act against non-state actors, as they do not have fixed identity and territory. People indoctrinated to commit suicide terrorism are indeed very difficult to deter through the threat of nuclear retaliation. Therefore, there is a powerful logic in either total elimination of nuclear weapons or collaborating in order to reduce the possibility of these weapons falling into the hands of terrorists.

## **Conclusion**

Nuclear danger is real in Asia. There are compelling reasons for India, Pakistan and China to undertake nuclear confidence-building measures. Without effective collaboration, nuclear danger in the region may grow in the coming years.

This chapter has argued that scholars generally tend to focus on Indo-Pakistani CBMs in their analysis for reducing nuclear danger in the region. But China is a critical factor and actor in reducing nuclear danger in South Asia. Without China's participation, New Delhi will have limited strategic incentives to pursue confidence-building.

Non-governmental initiatives have merit and they can contribute positively in influencing government policies. Such initiatives have been undertaken in recent years by various non-governmental entities and research institutes. Civil society in each country can play an important role in this regard.

As CBMs and as means of reducing nuclear danger in the region, sufficient attention should be paid to the CTBT, the FMCT and terrorism.



Collaboration on those issues will go a long way in establishing nuclear CBMs and in turn reducing nuclear dangers in one of the most volatile regions of the world.

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1 Following the second nuclear test, North Korea flight-tested seven ballistic missiles on 5 July 2009, including the long-range Taepodong-2 system. While the Taepodong-2 test failed, the other tests, which included four short-range missiles (300–600 kilometres) of Scud variants and two medium-range Nodong missiles (approximately 1,300 kilometres), were successful. For more on North Korea's missile development, see 'North Korea Missile Overview,' Nuclear Threat Initiative. Available at [http://www.nti.org/e\\_research/profiles/NK/Missile/index.html](http://www.nti.org/e_research/profiles/NK/Missile/index.html).

2 Some reports estimate that Iran has progressed substantially in its nuclear programme over the past few decades and that it could realistically produce enough highly enriched uranium (HEU) for at least one nuclear device in 2010. See *Meeting the Challenge: Time is Running Out*, Bipartisan Policy Centre, September 2009.

3 President Barack Obama announced at Prague on 4 May that, 'I state clearly and with conviction America's commitment to seek the peace and security of a world without nuclear weapons.' *Huffington Post*, 4 May 2009.

4 A number of initiatives have been taken at the global level towards elimination of nuclear weapons since 2008. The Oslo conference in February 2008 discussed an action plan for a nuclear weapons-free world by nuclear and non-nuclear weapons states alike. The London dialogue in March 2008 brought together senior officials and others from the foreign policy, as well as the defence establishments in Europe to discuss nuclear weapons elimination. An Experts' Roundtable in Berlin in June 2008 discussed the nuclear threat and opportunities for Europe to move forward on key threat reduction steps. In September 2008, the International Commission on Nuclear Non-Proliferation and Disarmament was set up as a result of an Australia–Japan initiative. In December 2008, over 100 political, military, business and civic leaders from across the globe launched the Global Zero initiative in Paris, aiming to eliminate all nuclear weapons and calling for a binding and verifiable agreement to dismantle these by a specified date.

5 See the Nuclear Threat Initiative web page for a comprehensive account of the Summit on 12–13 April 2010 in Washington, DC. Available at: [http://www.nti.org/e\\_research/e3\\_nuclear\\_security\\_summit.html](http://www.nti.org/e_research/e3_nuclear_security_summit.html) [accessed 19 June 2010].

6 Major General (Retd.) Pan Zhenqiang, 'China's Nuclear Strategy in a Changing World Strategic Situation,' in Barry Blechman, ed., *Unlocking the Road to Zero – Perspectives of Advanced Nuclear Nations*, Nuclear Security Series, Stimson Center, Washington, DC, March 2009. Official documents of China's nuclear decision-making process leading to the nuclear tests are not yet available. Yet, Pan's leading position in the PLA lends authenticity to his opinion. His view is quoted extensively in this chapter as reflecting an important Chinese view.

7 Country Profile: China, Nuclear Threat Initiative. Available at [http://www.nti.org/e\\_research/profiles/China/Nuclear/index.html](http://www.nti.org/e_research/profiles/China/Nuclear/index.html).

8 According to Colonel David Marks: 'In fact, Russian–Chinese contacts along that border began to constitute a significant problem by 1967. In January of that year, there were reports of a clash along the Ussuri in which the Soviets accused the Chinese of wildly provocative behaviour in connection with the excesses of the Cultural Revolution. Border guards reported incidents on 23 December 1967 and in late January 1968, along both the Ussuri and the Amur.' See Colonel David Marks, 'The USSURI River Incident as a Factor in Chinese Foreign Policy.' Available at <http://www.airpower.maxwell.af.mil/airchronicles/aureview/1971/jul-aug/marks.html> [accessed 20 December 2009].

9 Zhenqiang claims that 'China's nuclear strategy has almost solely been affected by the nuclear capabilities, nuclear strategies and nuclear doctrines of the two nuclear superpowers, the US in particular.' See Zhenqiang, 'China's Nuclear Strategy,' p. 32. By coincidence India is in a similar situation today confronting two states – China and Pakistan.

- 10 Zhenqiang, 'China's Nuclear Strategy,' p. 32.
- 11 Raja Ramanna, speaking to the Press Trust of India, 10 October 1997. Also refer to Raja Ramanna, *Years of Pilgrimage* (New Delhi: Viking, 1991).
- 12 George Perkovich alludes to this in his seminal work on India's nuclear programme, *India's Nuclear Bomb: The Impact on Global Proliferation* (New Delhi: Oxford University Press, 2000).
- 13 The PTBT was signed in 1963 and discussions for the NPT started in 1958.
- 14 The Nav Nirman Sena spread 'like a firestorm,' argued Dawn E. Jones and Rodney W. Jones, 'Urban Upheaval in India – the 1974 Naz and Nirmam Riots in Gujarat,' *Asian Survey*, vol. 16, no. 11 (November 1976), p. 1012.
- 15 Stephen Sherlock, *The Indian Railways Strike of 1974: A Study of Power and Organised Labour* (New Delhi: Rupa and Co., 2001).
- 16 Raj Chengappa explains the contours of India's nuclear programme comprehensively from an Indian perspective. See *Weapons of Peace* (New Delhi: HarperCollins, 2000).
- 17 'China is Potential Threat Number One,' *The Indian Express*, 4 May 1998. Available at <http://www.expressindia.com/news/fe/daily/19980504/12455554.html> [accessed 7 January 2010]. Also, see 'China is Enemy No 1: George,' *The Indian Express*, 4 May 1998. Available at <http://www.expressindia.com/news/ie/daily/19980504/12450024.html> [accessed 7 January 2010]; 'George in the China Shop,' *India Today*, 18 May 1998.
- 18 'Nuclear Anxiety: India's Letter to Clinton on Nuclear Testing,' *The New York Times*, 13 May 1998. Available at <http://www.nytimes.com/1998/05/13/world/nuclear-anxiety-indian-s-letter-to-clinton-on-the-nuclear-testing.html?pagewanted=1> [accessed 7 January 2010].
- 19 Sumita Kumar, 'Pakistan's Nuclear Weapon Programme,' in Jasjit Singh, ed., *Nuclear India* (New Delhi: Knowledge World, 1998).
- 20 The author was a senior fellow at the Institute of Defence Studies and Analysis (IDSA), New Delhi, while still in government service from 1987 to 1990. IDSA, then, was the only think tank in India on strategic issues and played a leading part in developing this perception. K. Subrahmanyam, a government official, was its director and wrote on this extensively in the media and in a monograph. Other senior researchers of the institute also contributed thoughts on this issue. Some publications other than the many journal articles published during this period include: P.B. Sinha and R.R. Surbramanian, *Nuclear Pakistan: Atomic Threat to South Asia* (New Delhi: Vision Books, 1980); V.K. Kaushik and O.N. Mehrotra, *Nuclear Bomb–Pakistan* (New Delhi: Sopan Publishing House, 1980); K. Subrahmanyam, *Nuclear Myths and Realities: India's Dilemma* (New Delhi: ABC Publishing House, 1981); K. Subrahmanyam and Matin Zuberi, *Problems of the Nuclear Age* (New Delhi: Centre for Research in Rural and Industrial Development, 1985); Savita Pande, *Pakistan's Nuclear Policy* (New Delhi: D.K. Fine Arts Press, 1991).
- 21 Kanti P. Bajpai, 'India and the Initiation of a Crisis,' in Kanti P. Bajpai, P.R. Chari, Pervez I. Cheema, Stephen P. Cohen and Sumit Ganguly, *Brasstacks and Beyond: Perception and Management of Crisis in South Asia* (New Delhi: Manohar, 1995), p. 39.
- 22 Kumar, 'Pakistan's Nuclear Weapon Programme,' p. 163. See also, 'China's Nuclear Exports and Assistance to Pakistan,' Center for Nonproliferation Studies, Monterey Institute of International Studies, Monterey, CA, August 1999. Available at <http://cns.miis.edu/research/india/china/npakpos.htm> [accessed 7 January 2010]
- 23 'Pak Takes a U-turn to Block Fissile Cut-off Treaty,' *The Indian Express*, 17 August 2009. Available at <http://www.expressindia.com/latest-news/Pak-takes-a-Uturn-to-block-fissile-cutoff-treaty/502947/> [accessed 7 January 2009].
- 24 This assertion was made by a senior Pakistani strategic specialist, a former member of the Strategic Plans Division, at a conference in Colombo in December 2008. The author was present at the event.

25 Stephen P. Cohen, quoted in the Pakistan Army's web site at <http://www.defence.pk/forums/wmd-missiles/27733-pakistans-nuclear-doctrine.html> [accessed 21 June 2010].

26 Walter C. Ladwig III, 'A Cold Start for Hot Wars? The Indian Army's New Limited War Doctrine,' *International Security*, vol. 12, no. 3 (Winter 2007–08), pp. 158–90.

27 'Surgical Strikes are Feasible Militarily: Army Chief,' *The Indian Express*, 8 February 2009. Available at <http://www.expressindia.com/latest-news/Surgical-strikes-are-feasible-militarily-Army-Chief/420738/> [accessed 7 January 2010].

28 P.R. Chari, P.I. Cheema and Stephen Cohen, *Four Crises and a Peace Process: American Engagement in South Asia* (Washington, DC: Brookings Institution, 2007).

29 Available at <http://www.C:\DocumentsandSettings\Administrator\Desktop\Leverhulmeproject\China'sNationalDefensein2006.mht> [accessed 16 August 2009].

30 Available at <http://www.C:\DocumentsandSettings\Administrator\Desktop\Leverhulmeproject\China'sNationalDefensein2006.mht> (emphasis added).

31 Available at <http://www:C:\DocumentsandSettings\Administrator\Desktop\Leverhulmeproject\China'sNuclearDoctrine.mht> [accessed 16 August 2009].

32 Available at <http://www:C:\DocumentsandSettings\Administrator\Desktop\Leverhulmeproject\China'sNuclearDoctrine.mht> [accessed 16 August 2009].

33 Draft Report of National Security Advisory Board on Indian Nuclear Doctrine 17 August 1999. Available at <C:\DocumentsandSettings\Administrator\Desktop\Leverhulmeproject\DraftReportofNationalSecurityAdvisoryBoardonIndianNuclearDoctrine-August17,1999.mht> [accessed 15 August 2009].

34 Press Release, 'The Cabinet Committee on Security Reviews Operationalisation of India's Nuclear Doctrine,' New Delhi, 4 January 2003. Available at <http://pib.nic.in/archieve/ireleng/lyr2003/rjan2003/04012003/r040120033.html> [accessed 7 January 2010].

35 The text of the Memorandum of Understanding, Signed by the Indian Foreign Secretary, Mr K. Raghunath, and the Pakistan Foreign Secretary, Mr Shamshad Ahmad, in Lahore on 21 February 1999, Lahore Summit, 20–21 February 1999. Available at <http://www.stimson.org/southasia/?sn=sa20020109215> [accessed 7 January 2010].

36 See Agreement on the Maintenance of Peace and Tranquillity along the Line of Actual Control in the India–China Border Areas, 7 September 1993. Available at <http://www.stimson.org/southasia/?sn=sa20020114287> [accessed 7 January 2010]. See also Agreement Between the Government of the Republic of India and the Government of the People's Republic of China on Confidence-Building Measures in the Military Field Along the Line of Actual Control in the India–China Border Areas, 29 November 1996. Available at <http://www.stimson.org/southasia/?sn=sa20020114290> [accessed 7 January 2010].

37 'Natwar Moots Common Nuclear Doctrine for India, Pak, China,' *The Daily Excelsior*, 1 June 2004. Available at <http://www.dailyexcelsior.com/web1/04june02/main.htm> [accessed 7 January 2010].

38 Shaun Gregory, 'Nuclear Command and Control in Pakistan,' *Defense and Security Analysis*, vol. 23, no. 3 (2007); Rolf Mowatt-Larssen, 'Nuclear Security in Pakistan: Reducing the Risks of Nuclear Terror,' Arms Control Association, July/August 2009. Available at [http://www.armscontrol.org/act/2009\\_07-08/Mowatt-Larssen](http://www.armscontrol.org/act/2009_07-08/Mowatt-Larssen) [accessed 7 January 2010].

# Chapter 12

## Nuclear Arms Control Challenges in South Asia<sup>\*1</sup>

Bhumitra Chakma

### Introduction

Arms control is an old idea – almost as old as war itself. Since antiquity, it has been used as an instrument to prevent war. Arms control in modern times is also pursued to contain damage if war occurs and to reduce the political and economic costs of defence. Human history is replete with numerous arms control initiatives. However, efforts to control arms have only a mixed record. Many arms control efforts were successful, while others were not, resulting in, in some cases, widespread and disastrous destruction.

In the postwar era, the theory and practice of arms control have evolved over the years. In the initial years following the Second World War, arms control meant ‘reduction to arms, particularly ... nuclear weapons’ and the concept was ‘virtually synonymous with disarmament.’<sup>2</sup> In the late 1950s and early 1960s, the meaning of arms control was transformed qualitatively and became largely divorced from the notion of disarmament. A new wave of arms control scholarship emerged during this period, which posited that weapons reductions per se would not necessarily contribute to peace and the primary objective of arms control should be to strengthen ‘stability,’ which is defined in terms of an increase in ‘second strike’ capability and a reduction in ‘first strike’ strategic nuclear weapons.<sup>3</sup> With some political accommodation and based on a common interest in avoiding nuclear Armageddon by antagonistic superpowers, arms control came to be closely connected to nuclear deterrence. The new thinking about arms control arose against the backdrop of the realisation that complete nuclear disarmament was perhaps unachievable and ‘utopian’ in a Cold War environment. The new theory of arms control was perceived to be a pragmatic alternative to

the old-fashioned idea of disarmament. The arms control concepts and principles that were developed during this period left a far-reaching impact and have considerable relevance even today, particularly in South Asia.

South Asia being a region of seemingly endless conflict, crisis and war, there are compelling reasons for arms control there. With the advent of nuclear weapons in India and Pakistan, urgency in the pursuit of arms control has become even more pressing. The two new nuclear powers of the region not only went to war in the pre-nuclear era, they even fought a brief but intense war in 1999 under the nuclear shadow, barely a year after their open nuclearisation in May 1998. Again in 2001–02 the two countries mobilised about a million of their troops to stand face to face in the border areas in a ten-month long tense military standoff. In an apparently endless saga of hostility, the two countries again underwent a period of extremely tense relations following the terrorist attacks in November 2008 on Mumbai, India's financial capital, by Pakistan-based extremist group Laskar-e-Toiba, which stalled the ongoing reconciliation dialogue. These episodes of confrontation in a nuclearised South Asia had the potential to trigger large-scale war between the two traditional South Asian rivals and could have led to nuclear war.

To reduce the likelihood of a large-scale Indo–Pakistani war and to prevent the possible use of nuclear weapons, arms control between India and Pakistan is absolutely vital. Nevertheless New Delhi and Islamabad have not demonstrated adequate willingness to pursue arms control. Indeed, arms control as a policy instrument is yet to receive serious attention from the Indian and Pakistani policy elites. Although New Delhi and Islamabad have undertaken some unilateral and bilateral nuclear arms control measures in the past two and a half decades, the two countries have conspicuously refrained from undertaking serious, formal arms control initiatives to stabilise their mutual deterrence and reduce the likelihood of large-scale war. New Delhi and Islamabad, as will be explained in this chapter, are likely to remain reluctant to undertake serious arms control initiatives, at least in the near term.

The primary objective of this chapter is to explain the structural impediments of arms control between India and Pakistan. Three key reasons underscore the lack of interest in arms control in the region. First, India and Pakistan are at the formative phase of their nuclear force-building and a competitive arms build-up is still the dominant trend in their strategic

relations. They are yet to build secure retaliatory capability. At this stage, it is unlikely that they will undertake serious arms control commitments because of the fear that it may impede their force-building plans and, as a result, may harm the credibility of their nuclear capabilities.

Second, the state of the Indo–Pakistani political relationship has historically been and still is unfavourable to the pursuit of successful arms control. Some kind of political accommodation is essential for arms control to succeed. So long as Indo–Pakistani political rivalry remains intense and some kind of mutual political accommodation is absent, arms control is likely to remain at the periphery of their policy pursuits. Third, the Indo–Pakistani security competition has a strong extra-regional dimension. Pakistan’s security concerns are linked to India’s, India’s strategic postures are tied to China’s and China’s to the United States. The South Asian security dilemma is, therefore, linked to the systemic security dilemma. The extra-regional linkages of the South Asian security dilemma are likely to keep the goal of arms control in South Asia distant, at least in the foreseeable future.

This chapter proceeds in the following manner. First, it illustrates the imperatives of nuclear arms control in South Asia. Then it discusses various arms control measures that India and Pakistan have undertaken thus far and briefly evaluates their efficacy. Following this, the chapter analyses the factors that constrain India and Pakistan from undertaking serious arms control initiatives. Finally, it summarises the main arguments and briefly outlines a future research agenda.

## **Why Arms Control in South Asia?**

Many reasons underscore the importance of arms control in South Asia, but two factors stand out as critical and compelling. First, South Asia is a crisis- and war-prone region and a probable nuclear flash point. To reduce the likelihood of war and forestall nuclear use, arms control between India and Pakistan is critically important. Second, India and Pakistan confront severe human security challenges and they have not made significant progress in human development, yet the two countries allocate more resources to defence than to other pressing social sector needs. India and Pakistan need to stop their potentially ruinous competitive arms build-up, and divert those

funds allocated to it to sectors that contribute to human development and strengthen human security. For this they need to pursue arms control.

*War prevention* It is not difficult to visualise the significance of arms control for war prevention in South Asia given that India and Pakistan have intermittently fought wars since they became independent in 1947. They fought wars in the pre-nuclear era as well as under the nuclear shadow following their open nuclearisation in 1998. The reasons and circumstances for going to war in the past still exist. Therefore, serious arms control initiatives are vital to reduce the likelihood of Indo–Pakistani war in the future.

India and Pakistan have fought four wars – three in the pre-nuclear era, in 1947–48, 1965 and 1971, and one under the nuclear shadow in 1999 – and have weathered numerous crises since 1947.<sup>4</sup> One of the key causes of those crises and wars was the Indo–Pakistani dispute over the territory of Kashmir. The two countries went to war over the territory in 1947–48 immediately following their independence. The issue led them to two more wars, in 1965 and in 1999 (three if one adds the Siachen conflict, which began in the early 1980s and technically still continues).<sup>5</sup> The Kashmir dispute still remains unresolved and there is no reasonable hope of its resolution in the foreseeable future. Other than the problem of Kashmir, several other issues, including that of water disputes,<sup>6</sup> and the Sir Creek dispute, impede the normalisation of their bilateral relations. All this makes Indo–Pakistani rivalry a classic case of ‘enduring conflict.’<sup>7</sup>

With the introduction of nuclear weapons into their arsenals, the urgency of arms control has assumed even greater significance. And this significance is because of the likelihood of nuclear war between India and Pakistan, which may erupt due to:

1. a preventive strike or strategic surprise attack;
2. escalation from conventional war;
3. deterrence failure or breakdown under the pressure of a politico–strategic crisis;
4. inadvertent – accidental or unauthorised – use of nuclear weapons; and
5. third-party, i.e. terrorist, manipulation of computer systems or other acts that look like an adversary’s nuclear attack. Thus the



establishment of deterrence stability through arms control to forestall nuclear use is vital.

India and Pakistan are yet to build secure and survivable second-strike forces and hence the problem of first strike or preventive war still remains. According to Scott Sagan, the ability of the South Asian nuclear forces to survive a surprise attack is doubtful and nuclear South Asia remains susceptible to preventive war.<sup>8</sup> Furthermore, crisis escalation leading to nuclear use remains a key challenge to Indo–Pakistani deterrence. The risk was sharply apparent during the 1999 Kargil conflict.<sup>9</sup> The Kargil conflict demonstrated that nuclear weapons had not made war ‘unthinkable’ between India and Pakistan. Although some scholars have pointed out that such ‘limited war’ is not unnatural in a nuclear environment, which they posit as a ‘stability–instability paradox,’<sup>10</sup> the bottom line is that such ‘limited war’ must be prevented from escalating to nuclear level.

South Asia again came to the edge of war in 2001–02 when India mobilised about half a million of its troops in the border areas in an apparent move to attack Pakistan in reaction to the terrorist attack on the Indian national parliament by Pakistan-based terrorist groups. Pakistan counter-mobilised its army in reaction to India’s military build-up, and thus a ten-month long, tense military stand-off ensued, which could have triggered a large-scale war between the two countries.<sup>11</sup> Relations between India and Pakistan went down sharply in the aftermath of terrorist attacks on Mumbai by Laskar-e-Toiba, a Pakistan-based terrorist group, in November 2008. The attacks stalled the ongoing reconciliation dialogue between the two enduring rivals. These episodes highlighted the importance of war prevention in South Asia.

Inadvertence constitutes another challenge to Indo–Pakistani deterrence. In South Asia inadvertent nuclear use may occur due to several factors such as underdeveloped or still-developing command and control structure, close geographical proximity, or leadership failure under stress. In recent years, the ‘non-state’ actors, i.e. terrorist groups, have not only complicated Indo–Pakistani strategic relations,<sup>12</sup> they also have emerged as a potential source of inadvertent use of nuclear weapons in the region. The risk of nuclear use, therefore, is formidable in South Asia.

Indeed, today’s Indo–Pakistani nuclear relations resemble those of the United States and Soviet Union in the 1950s when the latter two countries

moved towards arms control for deterrence stability. Since then, deterrence and arms control have become interlinked and arms control has basically been conceived as an extension of deterrence theory. Deterrence theory is about avoidance of war and arms control theory is about how to make deterrence stable such that it contributes to the avoidance of war. As Stephen Cambone argues, deterrence and arms control are linked and deterrence continues to drive the purposes of arms control.<sup>13</sup> Without appropriate mutual arms control measures between adversaries, nuclear deterrence is bound to remain fragile. Like the United States and Soviet Union in the 1960s, today's India and Pakistan need to take steps to stabilise their mutual deterrence.

*Cost containment* South Asia is one of the poorest regions of the world and the region confronts massive human security challenges. Human security challenges in the region derive from intra-state conflict, ethno-religious violence, terrorism, crime, drug trafficking, poverty, hunger, deprivation, gender inequality, disease, misgovernance, human rights abuse, minority suppression, environmental degradation, refugees and displacements, and shortages of drinking water. These make South Asia, as Pakistan's celebrated economist, the late Mahbub-ul-Haq, put it, 'the most endangered region' in the world.<sup>14</sup> Economic development indicators for the region suggest that almost 40 per cent of South Asia's population lives below the poverty line; half of the world's illiterate people live in South Asia; the adult literacy rate is about 48 per cent; the rate of enrolment of children in schools (both primary and secondary) in South Asian states is 57 per cent; it has the most malnourished children of any region of the world; 50 per cent of its children are under weight; 260 million South Asians have almost no health care facilities, 337 million have no safe drinking water.<sup>15</sup>

The key implication of such grave human insecurities in South Asia is that they may jeopardise 'national security' and may even lead to the breakdown of the state system itself. As a Pakistani analyst observes that

we have already seen states more powerful than Pakistan crumble under the weight of declining economics, alienation of people and soaring military expenditure. Security policy must be developed that is guided by national needs based on socio-economic justice and adherence to the rule of law. Otherwise, not only will our national security be in jeopardy but the country's very survival will be at stake.<sup>16</sup>

Despite the precarious state of human security, India and Pakistan incur disproportionately high expenditures on defence. Although India and Pakistan are ranked 134th and 141st in the UNDP Human Development Index in 2009, but in defence expenditure they rank 9th (with \$36.3 billion and 2.6 per cent of GDP) and 35th (with \$4.7 billion and 2.6 per cent of GDP) respectively in the world.<sup>17</sup> In all likelihood, New Delhi and Islamabad will continue with high defence spending in the foreseeable future.

Nuclear weapons have added and will continue to add further burden on the economies of the two countries. According to Rammanohar Reddy, India's nuclear programme will incur a cost of Rs 700–800 billion a year at 1998–99 prices, which is equivalent to an incremental cost of 0.05 per cent of India's GDP every year. In dollar terms this is estimated at \$16–19 billion.<sup>18</sup> Likewise, Pakistan's nuclear arsenals are supposed to incur a high cost for its economy, although no substantive figures are available for the country.

There is a myth in some circles that a nuclear deterrent is cheaper than conventional forces and nuclear weapons are a substitute for conventional military capability. But the fact of the matter is that even if a state acquires a nuclear deterrent, it still has to maintain adequate conventional capabilities. As the Kargil conflict has highlighted, India and Pakistan would need to maintain conventional capabilities despite their possession of nuclear weapons. According to Reddy, nuclear weapons have not reduced spending on conventional weapons, rather, they have further burdened the Indian economy.<sup>19</sup>

Dreze and Sen in their study on India find many 'social costs of militarism' and conclude that rising military expenditure imposes substantial opportunity costs on government priorities such as health care and primary education.<sup>20</sup> Pakistan's military expenditure imposes more 'social costs,' given the precarious state of the country's economy, as it often teeters on the brink of being a failed state. Given the above, arms control to reduce defence spending should be a high priority in South Asia.

## **The State of Nuclear Arms Control in South Asia**

Arms control can be pursued through unilateral, bilateral or multilateral approaches and all three approaches, if strategically employed, can promote stability and peace. The multilateral approach has a very poor record in South Asia. While India and Pakistan have undertaken some unilateral and bilateral arms control measures, these measures have done little to address the pressing concerns of the region. In other words, arms control has not taken a root in South Asia.

*Multilateral approach* The multilateral approach to arms control has had virtually no success in South Asia. The international non-proliferation regime – the Non-Proliferation Treaty and its derivatives such as the Nuclear Suppliers Group, the Missile Technology Control Regime and the Comprehensive Test Ban Treaty (CTBT) – failed to stop India and Pakistan from building nuclear arsenals. Although each has maintained a self-imposed moratorium on nuclear testing since 1998, a posture consistent with the spirit of the CTBT, they have refrained from signing the document. If the CTBT ratification process is to revive in the future, there is no certainty that India and Pakistan will sign the document. There is also a clear lack of enthusiasm over the proposed Fissile Material Cut-off Treaty (FMCT) in both capitals. Even negotiations for the FMCT could not begin due to Pakistan's veto. Pakistan argues that the proposed treaty is Pakistan-specific and specifically aims to deprive Pakistan from accumulating the fissile material stocks required to build a credible nuclear deterrent.

*Unilateral approach* Both India and Pakistan have undertaken some unilateral arms control measures, which include a unilateral moratorium on nuclear testing, adoption of a minimum nuclear deterrence strategy, de-alerted status of nuclear weapons, enactment of national laws to safeguard nuclear assets in accordance with the United Nations Security Council Resolution 1540, the adoption of a 'No First Use' nuclear doctrine by New Delhi, and the like. There is no doubt that these actions are significant, but a critical appraisal makes it evident that these unilateral measures are not sufficient for deterrence stability and a reduction of the likelihood of nuclear war in the region.

*Bilateral approach* India and Pakistan have adopted a number of bilateral confidence-building measure and arms control initiatives.<sup>21</sup> These include:

- Agreement on the Prohibition of Attack Against Nuclear Installations and Facilities, signed on 31 December 1988. Under this agreement, the two countries have exchanged lists of their nuclear installations and facilities every year on 1 January from 1992 until today;
- Agreement on Advanced Notification of Military Exercises, Manoeuvres and Troop Movements, signed on 6 April 1991;
- Agreement on Prevention of Airspace Violations and for Permitting Overflights and Landings by Military Aircraft, signed on 6 April 1991;
- Joint Declaration on the Complete Prohibition of Chemical Weapons on 19 August 1992;
- Agreement on Advance Notification of Ballistic Missile Test, signed on 3 October 2005;
- Agreement on Reducing the Risk from Accidents Relating to Nuclear Weapons, signed on 21 February 2007.

Some other confidence-building measures also are noteworthy in the context of reducing military tensions between the two countries and for the improvement of their political relations.<sup>22</sup> For example, in February 1999, a Memorandum of Understanding (Lahore Declaration) was signed for the normalisation of relations during Indian Prime Minister Atal Behari Vajpayee's bus trip to Pakistan. However, the attempt went awry as the Kargil war erupted in the spring of that year. In February 2004, a five-point peace-building process (known as composite dialogue) was initiated. It was suspended as Pakistani-based terrorists attacked a number of targets in India's financial capital Mumbai in November 2008. Although some steps have been taken to resume bilateral dialogue from the beginning of 2010, it is uncertain when serious negotiations on reconciliation will resume.

These steps are no doubt significant, but on a critical reflection, it is evident that they do not address the most critical issues and they are not driven by serious intentions to stabilise mutual deterrence and reduce the risk of nuclear war. According to Intriligator and Brito, substantive nuclear arms control should include issues such as limitations in the number of warheads, non-deployment of nuclear weapons, changes in types, bases or configurations, limits on testing and the like.<sup>23</sup> India and Pakistan have refrained from addressing such issues, crucial as they are for deterrence stability. More importantly, New Delhi and Islamabad have thus far

undertaken very limited measures to establish crisis stability, in order to forestall a future crisis from going out of control, despite the fact that they confronted several crises over the past decade under the nuclear shadow.

Moreover, there are questions about the effectiveness of the limited confidence-building measures that India and Pakistan have undertaken. For example, since 1992, New Delhi and Islamabad have exchanged lists of their nuclear installations and facilities under the terms of the 1988 agreement. However each has accused the other of being dishonest, in that they may not have provided all the information. Similarly, each has questioned the sincerity of the other in implementing the October 2005 agreement on advance notification of ballistic missile testing.

Crucially, the Indo–Pakistani arms control measures are not driven by a sincere desire to establish strategic stability in the region. Rather, they are driven more by politico–diplomatic point-scoring or other parochial motives. As Rodney Jones points out, nuclear arms initiatives by India and Pakistan are not for intrinsic arms control objectives, but for political utility, that is, attracting outside powers.<sup>24</sup> Similarly, Indo–Pakistani confidence-building measures are also mostly driven by politico–diplomatic motives and clearly lack serious commitment to attain arms control goals. In the absence of serious political commitment to their nuclear CBMs, the usefulness of these measures, if any, is minimal. As Zafar Jaspal concludes:

The history of the India–Pakistan relationship reveals that traditional and recognized CBMs would be of little practical application to subcontinental peace and the resolution of the India–Pakistan dispute, because most of the agreements signed between both [sic] states in the military and non-military areas of CBMs have not been implemented. Non-implementation has created a credibility crisis for the CBM process.<sup>25</sup>

It is, therefore, evident that there is little reason to be optimistic about the prospects of deterrence stability that may result from the current arms control initiatives in South Asia.

## **Arms Control Challenges in South Asia**

Several challenges and structural factors hinder the prospects for arms control between India and Pakistan. They can be clustered into following three categories:

- Indian and Pakistani nuclear deterrents being in their formative phase and the dynamics of arms build-up;
- Indo–Pakistani political dissonance;
- extra-regional linkages.

### ***The Formative Phase of Indian and Pakistani Nuclear Deterrents***

One of the key reasons for India's and Pakistan's lack of interest in arms control is that both countries are in the formative phase of their nuclear force-building and at this stage are unlikely to initiate arms control measures, fearing that it may affect their future force-building plans and options and consequently erode the credibility of their fledgling nuclear capabilities. According to the Federation of American Scientists, India currently has 60–80 nuclear warheads and Pakistan has 70–90.<sup>26</sup> Given that New Delhi and Islamabad are still competitively upgrading their nuclear arsenals and increasing their fissile material stockpiles, it does not appear that they, with their current capabilities, have constructed secure second-strike capabilities. Until New Delhi and Islamabad are self-confident about their retaliatory capabilities, they will continue to upgrade their nuclear arsenal and disregard the benefits that arms control may provide. Arguably, the nuclear scenario between India and Pakistan today resembles that of the US–Soviet nuclear situation in the early 1950s, when the latter two countries demonstrated little interest in nuclear arms control and were pursuing vigorous arms build-up.

New Delhi announced a draft nuclear doctrine in August 1999 and eventually adopted it with very few modifications as the official nuclear doctrine in January 2003. India's nuclear doctrine makes it clear that it intends to build a triad deterrent force comprising air, sea and land-based assets.<sup>27</sup> Given such an ambitious doctrine, it is not difficult to see that New Delhi is still in the formative phase of its nuclear force-building. For example, India is yet to develop the sea-based component of its nuclear deterrent.<sup>28</sup> Moreover, defining the formative phase from an Indian standpoint is a tricky exercise due to the China factor in defining India's minimum deterrence posture. It is not very clear, even to the Indians, what should be the numerical force level of the Indian deterrent vis-à-vis China. India's nuclear force-building, therefore, is a work in progress and its force-

building in the years ahead will be influenced by many imponderable factors, including the China factor.<sup>29</sup>

As another component of its deterrent force, India intends to build modern missile capabilities in addition to aircraft as nuclear delivery vehicles. New Delhi planned to build a missile force about three decades ago. In 1983, it launched an ambitious missile-building project, the Integrated Guided Missile Development Programme (IGMDP). Under this project India developed various types of short- and medium-range missile systems and acquired 'pioneering and powerful expertise.' In January 2008, India ended the IGMDP and announced its intention to build more sophisticated missile systems in a five-year programme with the involvement of 'foreign partners and private industries.'<sup>30</sup> This component of the Indian nuclear force is also a project in progress.

Pakistan has not formally announced a nuclear doctrine as yet. However, Islamabad announced the setting up of a nuclear command and control structure in February 2000. In the announcement it indicated that Pakistan had established a weapons development committee, which meant that Islamabad had assessed force requirements for its minimum deterrence posture, institutionalised the process of weapons development and perhaps developed a force-building plan. Although Islamabad never stated anything clearly about its force-building plan or policy, it can be assumed from its operational nuclear postures that Pakistan adopted a quantitative force-building approach following the May 1998 nuclear tests. For example, in January 2005 the then president, General Musharraf, announced that Pakistan had attained its quantitative target for nuclear force-building.<sup>31</sup> Musharraf's announcement meant that Pakistan had implemented the five-year force-building plan that it adopted at the time it announced a command and control structure, in February 2000. However, despite Musharraf's claim, the question remains as to whether Pakistan at that point in time had actually built a credible retaliatory strike force.

Indeed, it is unlikely that Pakistan had built a secure second-strike nuclear force vis-à-vis India by 2005. Moreover, it is extremely difficult from a Pakistani vantage point to determine the exact quantitative requirement for a minimum deterrent force. 'Minimum' for Pakistan is a slippery concept that cannot be viewed in static terms and the force structure and its efficacy cannot be based merely on the number of nuclear warheads. The efficacy of a minimum deterrent force is, on the contrary,



dependent on the survivability of the limited number of nuclear weapons that will make a retaliatory threat credible. Hence, its minimum deterrence needs to be conceived in a dynamic context, and its force structure, must be determined by the level of threat that exists at a particular time or in a given context. As Pakistan's then Foreign Minister, Abdul Sattar, posited:

The minimum cannot be quantified in static numbers. The Indian build up will necessitate review and reassessment in order to ensure the survivability and credibility of the deterrent. Pakistan will have to maintain, preserve and upgrade its capability.<sup>32</sup>

Another development also indicates that Pakistan's nuclear development is fluid and incomplete. Islamabad has reportedly embarked on a project to build plutonium-based nuclear warheads to diversify its stockpile. Traditionally Pakistan's nuclear arsenal was composed of enriched uranium-based nuclear weapons. In recent years Islamabad has devoted its attention to increasing its fissile materials stockpile by reprocessing plutonium. Various reports suggest that Pakistan has built two reactors in order to generate more plutonium.<sup>33</sup> Furthermore, Pakistan has signed a nuclear cooperation agreement with China to construct another two reactors. Therefore, it is reasonable to expect that it will take years for Pakistan to build up a sufficient level of warheads from reprocessed plutonium.

Pakistan's ongoing missile development programme also indicates the incomplete nature of the country's force-building plan. Although Pakistan has built different types of missile systems with varied ranges and payload capabilities,<sup>34</sup> it does not appear to have achieved the level of missile capability that it intended to build. There are a number of ongoing missile development projects, either in the form of new missile systems or upgrades of old ones. Further, Islamabad intends to build a sea-based component for its nuclear deterrent. Therefore, it is evident that Pakistan's nuclear force-building, like that of India, is a project in progress.

Two things are evident in India and Pakistan's nuclear force development. One, both countries are in the formative phase of their nuclear force-building and they are still far short of acquiring secure second-strike capabilities. Two, they are extremely competitive and interactive in their force-building. These factors make India and Pakistan reluctant to commit to any worthwhile arms control initiatives. As long as they are not sure about the survivability of their nuclear forces against a first strike, it is

highly unlikely that they will do anything that might restrain their force-building prospects. In all likelihood, the competitive arms build-up in India and Pakistan will continue in the foreseeable future and serious arms control initiatives will remain elusive.

### ***Indo–Pakistani Political Dissonance***

Arms control is necessarily a political affair; hence, successful arms control moves must be preceded by some kind of political accommodation. As Kruzel asserts: ‘One necessary condition of arms control success is that negotiating states must have already reached some form of political accommodation.’<sup>35</sup> In a situation of intense political hostility, arms control cannot gain ground and is unlikely to succeed. As Colin Gray has posited: ‘So long as political rivalry and hostility are not abated there can be no sufficient basis for an arms control process to accomplish anything more substantial than registration of the facts of military competition.’<sup>36</sup> The Indo–Pakistani political rivalry is so intense and unaccommodating that it leaves no political space for initiating a serious arms control process in South Asia.

India and Pakistan have a rough history of intractable conflict and consequently political relations are ridden with serious dissonance. Despite intermittent policy coordination and cooperation in the past six decades,<sup>37</sup> the overall relationship has been dominated by repeated crises, conflicts and wars, in fact, as Sumit Ganguly dubs it ‘Conflict Unending.’<sup>38</sup> This environment has hardened the regional security dilemma and fuelled unilateral arms build-up rather than arms control.

In the short to medium term, the prospect for normalisation of Indo–Pakistani relations is dim. The core issue in Indo–Pakistani relations – the Kashmir dispute – still remains unresolved and no hopeful sign is visible of its resolution in the foreseeable future. Until this problem is resolved, there is little prospect of an improved Indo–Pakistani relationship. Moreover, Islamabad’s adoption of the strategy of using extremist groups against India for strategic purposes in the post-Cold War era has added a new twist to their fractured relations. Islamabad began to use such groups following the Soviet Union’s withdrawal from Afghanistan. It not only soured their political relations but also made their strategic relations tense, precarious and volatile. In 2001, 2002 and 2008, when Pakistan-based extremist

groups carried out terrorist attacks on India, not only did relations nose dive immediately but they also brought the two countries to the brink of war, with the risk of escalation to the nuclear level.

To deal with Pakistan's strategy of using extremist groups for strategic purposes against India, New Delhi has adopted a new strategic doctrine called 'Cold Start,'<sup>39</sup> which has further complicated Indo-Pakistani politico-strategic relations. New Delhi has specifically adopted the doctrine in reaction to the 1999 Kargil conflict and the 2001-02 military stand-off. In Indian policymakers' view, terrorist attacks by Pakistan-based extremist groups remain a potent threat and India might have to confront low-intensity warfare under the nuclear shadow in the future. Hence, India needs to have a strategic doctrine, which facilitates rapid deployment of its conventional forces and wins limited wars. Pakistanis reacted sharply to New Delhi's adoption of the new doctrine, criticising it for making another Indo-Pakistani war more likely.<sup>40</sup>

Indeed, New Delhi's 'Cold Start' doctrine has added a new twist to the fragile political and strategic relations of the two countries. For one thing, there were already enough complexities in Indo-Pakistani politico-strategic relations because of enduring rivalry, power asymmetry and their zero-sum strategic mentality. The Indian doctrine has made the relationship even more precarious. Put simply, Indo-Pakistani politico-strategic rivalry is intense and there is no sign of it abating in the foreseeable future. Such an environment creates strong disincentives for arms control in the region.

### ***Extra-regional Link***

Another intractable nuclear arms control challenge that India and Pakistan confront is the fact that the South Asian security dilemma has extra-regional links. Not only does the China factor cast a shadow over the South Asian strategic environment, but the Indo-Pakistani security dilemma is even linked to the systemic dilemma via China. What happens outside the region, therefore, has a profound bearing on South Asian strategic developments.

The link between the South Asian security dilemma and the systemic security dilemma is as follows: Pakistan's security concerns are India-specific; India's strategic worries are tied to China and China's to the United States. This chain reaction is clearly visible in the history of proliferation of nuclear weapons in South Asia. Pakistan initiated its nuclear

weapons programme due to the fear that India was building nuclear weapons and since its inception the Pakistani programme has been India-specific. The key driver of India's nuclear weapons programme is China.<sup>41</sup> Beijing launched its nuclear weapons programme because of the fear of the US nuclear arsenal.

In a similar fashion, the arms race in South Asia is fuelled by extra-regional factors. India's arms acquisitions are greatly driven by the China factor. Although Sino-Indian relations have been generally friendly without any major overt strategic friction over the past two decades, both New Delhi and Beijing are aware that they are strategic rivals in the long run. It is not very difficult to see this in India's strategic thinking and military build-up. For example, to counter the Pakistan threat, India does not need missile systems of more than 1,000 km range. But India's missile development plan includes the building of missiles that can hit targets much further than that; the *Agni-III* and *Surya* have a range of 3,500 km and 5,500+ km respectively.<sup>42</sup> And New Delhi has already planned to build *Agni-IV*, which will have a much longer range than its predecessor. Indeed, China is very much part of India's strategic calculations. India's Chief of Army Staff, General Deepak Kapoor, has revealed that India in recent years has been preparing for a two-front war.<sup>43</sup>

New Delhi is also worried about Beijing's strategic collusion with Pakistan, which it views as an encircling alliance driven by balance of power politics. India has repeatedly expressed concerns over China's clandestine and even open assistance to Pakistan's nuclear weapons programme.<sup>44</sup> The conclusion of a civilian nuclear cooperation agreement between Pakistan and China under which the latter is to supply two nuclear reactors has raised strategic concerns in New Delhi.<sup>45</sup> India's strategic behaviour and its military build-up are greatly affected by this factor.

India's arms build-up in relation to China has implications for Pakistan's security and its strategic postures. Therefore, Indo-Pakistani strategic rivalry and competitive arms build-up are greatly influenced by Sino-Indian strategic dyad and dynamics. According to Rodney Jones, India is allergic to arms control because it is militarily inferior to China and it does not want to freeze the disparity by undertaking arms control. New Delhi will undertake arms control if it means having parity with China.<sup>46</sup> Pakistan has a similar problem vis-à-vis India. As China and India have not initiated any arms control dialogue and both are engaged in the gradual modernisation of

their arsenals, this is bound to have an impact on Indo–Pakistani strategic rivalry. Therefore it can be argued that the extra-regional links of the South Asian security dilemma will continue to seriously hinder prospects for arms control in South Asia.

## **Conclusion**

South Asia is a region of enduring rivalry and conflict unending, and two of the region's war-prone states – India and Pakistan – possess nuclear weapons. Hence, the use of nuclear weapons in an Indo–Pakistani war is likely, which should be a good enough reason to pursue arms control in order to reduce the likelihood of nuclear use. Moreover, although the region is one of the most endangered regions of the world in terms of human security, Pakistan and India still prioritise defence over other sectors in government spending. The prioritisation of 'guns' over 'butter,' albeit self-defeating, is the dominant pattern of government spending in India and Pakistan.

Notwithstanding such compelling reasons, India and Pakistan are reluctant to pursue arms control seriously. The reasons for such reluctance in New Delhi and Islamabad are neither surprising nor difficult to pinpoint. There are formidable, structural arms control challenges in the region. As is argued in this chapter, three key factors explain the lack of interest in arms control in South Asia. First, the present formative phase of India's and Pakistan's nuclear force-building creates disincentives for arms control. Second, their tense politico–strategic relations are extremely unfavourable for devising meaningful and worthwhile arms control measures. Deterrence functions in a political context, as does arms control. No successful arms control process can be sustained unless it is preceded by some sort of political accommodation. Third, prospects for arms control between India and Pakistan are affected by extra-regional links, i.e. the China factor. China casts a long shadow on the strategic developments of the region. For New Delhi, China is the key strategic concern. The extra-regional links of the South Asian security dilemma imply that unless there are positive changes in the external drivers of the dilemma, Indo–Pakistani strategic relations will remain hostage to developments beyond the region.

Given such barriers, it is difficult to be optimistic about the prospects of there emerging a sustained arms control process between India and Pakistan. However, the reasons for arms control are also compelling, something that India and Pakistan perhaps cannot ignore for long. There were at least a couple of close calls in the recent past, i.e. the 1999 Kargil conflict and the 2001–02 military stand-off, which could have brought nuclear catastrophe to the region. These close calls should have been wake-up calls for arms control. The question is, how many such close calls can India and Pakistan afford in the future? Nuclear India and Pakistan today, as was noted earlier, are much like the United States and Soviet Union of the 1950s. The two superpowers found enough ground and reasons to work together to stabilise their mutual deterrence through arms control. India and Pakistan, it seems, will benefit from the experience of the United States and Soviet Union.

Reflecting on the current trend of arms control practice in South Asia, there is a dearth of scholarly works on the region's arms control issues. There is enormous scope and it is indeed high time for scholars to contribute to South Asian nuclear arms control, given that little attention has been paid to developing arms control concepts or principles that could be useful to policymakers.<sup>47</sup>

Karthika Sasikumar has rightly pointed out that there have been three waves of nuclear scholarship on India's/South Asia's nuclear weapons. The first wave dealt with the motivations to 'go nuclear.' The second wave was on the effects of open nuclearisation. The third wave examined the long-term ramifications of the open nuclearisation decision.<sup>48</sup> It is time to think about a fourth wave on nuclear arms control. Indeed, serious scholarly discussion on arms control that could contribute to stabilising volatile strategic relations between India and Pakistan and avoid a possible nuclear Armageddon should have begun some time ago. The issue of arms control in South Asia, in terms of both theory and practice, cannot be neglected any longer.

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1 There is no consensus on the definition of arms control. However, a widely used definition of the concept is provided by Thomas Schelling and Morton Halperin. According to them, arms control refers to ‘all the forms of military cooperation between potential enemies in the interest of reducing the likelihood of war, its scope and violence if it occurs, and the political and economic costs of being prepared for it.’ See Thomas C. Schelling and Morton H. Halperin, *Strategy and Arms Control* (New York: The Twentieth Century Fund, 1961), p. 2. In this chapter, arms control is understood from the perspective of Schelling and Halperin.

2 Michael D. Intriligator and Dagoberto I. Brito, ‘On Arms Control,’ in Edward A. Kolodziej and Patrick M. Morgan, eds., *Security and Arms Control*, vol. 1 (New York: Greenwood Press, 1989), p. 214.

3 Patrick Glynn, ‘Critics of Arms Control and Disarmament,’ in Richard Dean Burns, ed., *Encyclopedia of Arms Control and Disarmament*, vol. 1 (New York: Maxwell Macmillan International, 1993), p. 327.

4 For a general background on South Asian wars, see Sumit Ganguly, *Conflict Unending: India–Pakistan Tensions Since 1947* (New York: Columbia University Press, 2002).

5 For a discussion on the Kashmir dispute, see Robert Wirsing, *India, Pakistan, and the Kashmir Dispute: On Regional Conflict and Its Resolution* (New York: St. Martin’s Press, 1998); Sumit Ganguly, *The Crisis in Kashmir: Portents of War, Hopes of Peace* (Cambridge: Cambridge University Press and the Woodrow Wilson Centre, 1999). On the Siachen conflict, see V.R. Raghavan, *Siachen: Conflict Without End* (New Delhi: Viking, 2002).

6 Water dispute between India and Pakistan has emerged as an important issue in their bilateral relationship. For example, Sardar Assef Ahmad Ali, Deputy Chairman of Pakistan’s Planning Commission, has asserted that ‘India will have to stop stealing Pakistan’s water as the latter will not hesitate to wage war with New Delhi if it does not stop doing so.’ See ‘Assef Fears War with India Over Water,’ *The News International*, 3 January 2010. Also, see Karin Brulliard, ‘Rhetoric Grows Heated in Water Dispute Between India, Pakistan,’ *The Washington Post*, 28 May 2010.

7 For more exposition on this, see T.V. Paul, *The India–Pakistan Conflict: An Enduring Rivalry* (Cambridge: Cambridge University Press, 2005).

8 Scott D. Sagan, ‘For the Worse: Till Death Do Us Part,’ in Scott D. Sagan and Kenneth Waltz, *The Spread of Nuclear Weapons: A Debate Renewed* (New York: W.W. Norton, 2003), pp. 90–108.

9 On the Kargil conflict, see John H. Gill, *Military Operations During the Kargil Conflict* (Washington, DC: US National Defense University, 2003); Shireen M. Mazari, *The Kargil Conflict: Separating Fact From Fiction* (Islamabad: Institute of Strategic Studies, 2003); Jasjit Singh, *Kargil: Pakistan’s Fourth War for Kashmir* (New Delhi: South Asia Books/IDSA, 1999); Ashley Tellis, C. Christine Fair, Jamison J. Medby, *Limited Conflict Under the Nuclear Umbrella: Indian and Pakistani Lessons from the Kargil Crisis* (Santa Monica, CA: RAND, 2001); Peter R. Lavoy, ed., *Asymmetric Warfare in South Asia: The Causes and Consequences of the Kargil Conflict* (Cambridge: Cambridge University Press, 2009).

10 The possibility of a stability–instability paradox was first noted by Basil Liddell Hart, and was subsequently definitively developed by Glen Snyder. The concept was eventually presented in a sophisticated fashion by Robert Jervis. See Basil Liddell Hart, *Strategy* (New York: Praeger, 1954); Glenn H. Snyder, *Deterrence and Defense: Toward a Theory of National Security* (Princeton, NJ: Princeton University Press, 1961); Glen H. Snyder, ‘The Balance of Power and the Balance of Terror,’ in Paul Seabury, ed., *The Balance of Power* (San Francisco, CA: Chandler, 1965); Robert Jervis, *The Illogic of American Nuclear Strategy* (Ithaca, NY: Cornell University Press, 1984). For the concept’s South Asian application, see Sumit Ganguly, ‘India–Pakistan Nuclear Issues and the Stability/Instability Paradox,’ *Studies in Conflict and Terrorism*, vol. 18, issue 4 (1995), pp. 325–34);

Michael Krepon and Chris Gagné, eds., *The Stability–Instability Paradox: Nuclear Weapons and Brinkmanship in South Asia*, Report no. 38 (Washington, DC: Henry L. Stimson Center, 2001). For a diametrically opposed view, see Varun Sahni, ‘The Stability–Instability Paradox: A Less Than Perfect Explanation,’ in E. Sridharan, ed., *The India–Pakistan Nuclear Relationship: Theories of Deterrence and International Relations* (London: Routledge, 2007), pp. 185–207.

11 The United States helped to pull the two parties back from the brink of a full-scale war. Without Washington providing crucial war-avoiding diplomatic support the crisis could have escalated to nuclear level. The question remains, what if the United States does not provide or fails to provide such support in a future crisis? On the US role in South Asian crises, see Feroz Hassan Khan, ‘The Independent–Dependent Paradox: Stability Dilemmas in South Asia,’ *Arms Control Today*, October 2003. Available at [http://www.armscontrol.org/act/2003\\_10/Khan\\_10](http://www.armscontrol.org/act/2003_10/Khan_10); P.R. Chari, Pervaiz Iqbal Cheema and Stephen P. Cohen, *Four Crises and a Peace Process: American Engagement in South Asia* (Washington, DC: The Brookings Institution, 2007).

12 On the role of non-state actors in complicating Indo–Pakistani strategic relations, see Sumit Ganguly and S. Paul Kapur, ‘The Sorcerer’s Apprentice: Islamist Militancy in South Asia,’ *The Washington Quarterly*, vol. 33, no. 1 (January 2010), pp. 47–59.

13 Stephen Cambone, ‘An Inherent Lesson in Arms Control,’ *The Washington Quarterly*, vol. 23, no. 2 (Spring 2000), p. 217.

14 Mahbub ul Haq Human Development Centre, *Human Development in South Asia 2005: Human Security in South Asia* (Karachi: Oxford University Press, 2006), p. 7.

15 These figures are taken from Mahbub ul Haq Human Development Centre, *Human Development in South Asia 2005: Human Security in South Asia*.

16 Ikram Sehgal, ‘Concept of National Security,’ *The News International* (Rawalpindi), 13 November 2008.

17 SIPRI Yearbook 2010. Available at <http://www.sipri.org/yearbook/2010/files/SIPRIYB201005-AB.pdf> [accessed 23 June 2010].

18 For a more detailed discussion of the cost of India’s nuclear weapons programme, see C. Rammanohar Reddy, ‘Nuclear Weapons Versus Schools for Children: An Estimate of the Cost of Nuclear Weaponisation,’ in M.V. Ramanna and C. Rammanohar Reddy, eds., *Prisoners of the Nuclear Dream* (New Delhi: Orient Longman, 2003), pp. 360–408.

19 Reddy, ‘Nuclear Weapons versus Schools for Children.’

20 Jean Dreze and Amartya Sen, *India: Development and Participation* (New Delhi: Oxford University Press, 2002).

21 The distinction between confidence-building measures and arms control is not that clear. Generally, confidence-building measures are undertaken prior to or following the conclusion of an arms control agreement.

22 For military and non-military confidence-building measures between India and Pakistan since 1988, see ‘South Asia: Confidence Building Measures (CBM) Timeline,’ Stimson Center. Available at <http://www.stimson.org/southasia/?SN=SA20060207948>.

23 Intriligator and Brito, ‘On Arms Control,’ p. 220. Although these issues are identified in the context of US–Soviet nuclear relations during the Cold War period, they have considerable relevance for the Indo–Pakistani nuclear dyad.

24 Rodney W. Jones, ‘Prospects for Arms Control and Strategic Stability in South Asia,’ *Contemporary South Asia*, vol. 14, no. 2 (June 2005), p. 206.

25 Zafar Nawaz Jaspal, *Nuclear Risk Reduction Measures and Restraint Regime in South Asia* (New Delhi: Manohar, 2004), pp. 103–104.

26 ‘Status of World Nuclear Forces,’ Federation of American Scientists (FAS). Available at <http://www.fas.org/programs/ssp/nukes/nuclearweapons/nukestatus.html> [accessed 12 June 2010].



The figures are based on the FAS's latest updated data on 28 May 2010.

27 The draft nuclear doctrine New Delhi released on 17 August 1999 and the formal adoption of a nuclear doctrine in January 2003 highlight this. For a discussion on the Indian nuclear doctrine, see Harsh V. Pant, 'India's Nuclear Doctrine and Command Structure: Implications for India and the World,' *Comparative Strategy*, vol. 24 (2005), pp. 277–93.

28 Although India has two sea-based ballistic missile systems – *Dhanush* and *K-15*, its submarine-based capability is still in its infancy. In July 2009 New Delhi announced the development of its first nuclear-powered submarine – *Arihant* – which is to be integrated with the Indian Navy by 2015. India has not provided full details of its completion, however it is assumed that key components, including the nuclear reactor, surveillance equipment, sensors, weapons and ordinance are yet to be installed. See K.S. Jayaraman, 'India's Nuclear Sub Doesn't Have Reactor Yet,' 13 August 2009. Available at [http://www.daijiworld.com/news/news\\_disp.asp?n\\_id=64065&n\\_tit=India%27s+Nuclear+Sub+Doesn%27t+Have+Working+Reactor+Yet](http://www.daijiworld.com/news/news_disp.asp?n_id=64065&n_tit=India%27s+Nuclear+Sub+Doesn%27t+Have+Working+Reactor+Yet).

29 Ashley J. Tellis, *India's Emerging Nuclear Posture: Between Recessed Deterrent and Ready Arsenal* (Arlington, VA: RAND, 2001).

30 'India Scraps Integrated Guided Missile Programme,' *The Hindu*, 9 January 2008.

31 Bhumitra Chakma, *Pakistan's Nuclear Weapons* (New York: Routledge, 2009), p. 59.

32 Abdul Sattar, 'Pakistan's Nuclear Strategy,' inaugural address at a seminar on 'Pakistan's Response to the Indian Nuclear Doctrine' organised by the Islamabad Council for Foreign Affairs and the Institute of Strategic Studies, Islamabad, on 25 November 1999, printed in 'The Nuclear Debate,' *Strategic Issues*, Islamabad: Institute of Strategic Studies, March 2000, p. 3.

33 On this, see David Albright and Paul Brannan, 'Commercial Satellite Imagery Suggests Pakistan is Building a Second, Much Larger Plutonium Production Reactor: Is South Asia Headed for a Dramatic Buildup in Nuclear Arsenals?' Institute for Science and International Security (ISIS), July 2006. Available at <http://www.isis-online.org/publications/southasia/newkhusab.pdf>.

34 For a discussion of Pakistan's missile capabilities, see Bhumitra Chakma, 'Pakistani Missiles: Explaining Procurement and Strategic Implications,' *BISS Journal* (Bangladesh Institute of International and Strategic Studies), vol. 28, no. 1 (2007), pp. 45–69.

35 Joseph J. Kruzel, 'Arms Control and American Defense Policy: New Alternatives and Old Realities,' *Daedalus*, vol. 110, no. 1 (Winter 1981), p. 153.

36 Colin S. Gray, 'Arms Control: Problems,' in R. James Woolsey, ed., *Arms Control: Ethics, Strategy, Politics* (San Francisco, CA: ICS Press, 1984), p. 160.

37 On India–Pakistan cooperation over the period 1947–1995, see Chetan Kumar, 'A Chronology of Cooperation: 1947–1995,' in Kanti P. Bajpai et al., *Brasstacks and Beyond: Perception and Management of Crisis in South Asia* (New Delhi: Manohar, 1995).

38 For more exposition of the issue, see Sumit Ganguly, *Conflict Unending: India–Pakistan Tensions Since 1947* (New York: Columbia University Press, 2002).

39 For a comprehensive treatment of the 'Cold Start' doctrine, see Walter C. Ladwig III, 'A Cold Start for Hot Wars? The Indian Army's New Limited War Doctrine,' *International Security*, vol. 32, no. 3 (Winter 2007–08), pp. 158–90. Although many critiqued the 'Cold Start' strategy as ineffective, the Indian military has made it the centrepiece of their war doctrine at the beginning of the 21st century. See Rajat Pandit, 'Army Reworks War Doctrine for Pakistan, China,' *Times of India*, 20 December 2009.

40 For a Pakistani perspective on the Indian 'Cold Start' doctrine, see Maleeha Lodhi, 'India's Provocative Military Doctrine,' *The News International*, 5 January 2010.

41 It is noteworthy that New Delhi rationalised its 1998 nuclear tests in terms of the China threat. Following the 1998 nuclear tests, the Indian government wrote an explanatory letter to the US president Bill Clinton, in which New Delhi claimed that China was the main factor that drove India

towards the nuclear path. Indeed, India's nuclear development was largely catalysed by the China factor. For a detailed exposition, see Bhumitra Chakma, 'Toward Pokhran II: Explaining India's Nuclearization Process,' *Modern Asian Studies*, vol. 39, no. 1 (February 2005), pp. 189–236.

42 For a list of the missile capabilities of India and Pakistan, see 'Missile Proliferation in South Asia: India and Pakistan's Ballistic Missile Inventories,' Arms Control Association. Available at <http://www.armscontrol.org/factsheets/agni>.

43 Rajat Pandit, 'India Reworks War Doctrine for Pakistan, China,' *Times of India*, 30 December 2009.

44 On the nature and motivations of China's nuclear assistance to Pakistan, see T.V. Paul, 'Chinese–Pakistani Nuclear/Missile Ties and the Balance of Power,' *The Nonproliferation Review*, vol. 10, no. 2 (Summer 2003), pp. 21–29.

45 'India Against Pak–China Nuclear Deal,' *Times of India*, 17 June 2010.

46 Jones, 'Prospects for Arms Control and Strategic Stability in South Asia,' pp. 201–202.

47 One notable work in this genre is Stephen Cohen's edited volume, which was published about two decades ago. See Stephen Philip Cohen, ed., *Nuclear Proliferation in South Asia: The Prospects for Arms Control* (Boulder, CO: Westview Press, 1991).

48 Karthika Sasikumar, 'India's Debated Nuclear Policy' (review essay), *India Review*, vol. 8, no. 3 (July 2009), pp. 375–84.

## Bibliography

- 10th SAARC Summit Declaration. 1998. Available at <http://www.saarcsec.org/?id=56&t=4#INTERNATIONAL%20POLITICAL%20DEVELOPMENTS> [accessed 28 July 2009].
- Acton, J.M. 2009. Nuclear Power, Disarmament and Technological Restraint. *Survival*, 51(4), 101–26.
- Agreement Between the Government of the Republic of India and the Government of the People's Republic of China on Confidence-Building Measures in the Military Field Along the Line of Actual Control in the India–China Border Areas. 1996. 29 November. Available at <http://www.stimson.org/southasia/?sn=sa20020114290>.
- Agreement on the Maintenance of Peace and Tranquillity Along the Line of Actual Control in the India–China Border Areas. 1993. 7 September. Available at <http://www.stimson.org/southasia/?sn=sa20020114287>.
- Ahmad, S. 2009. Stable Nuclear Security Order. *The Nation*, 22 August. Available at <http://www.nation.com.pk/pakistan-news-newspaper-daily-english-online/Opinions/Columns/22-Aug-2009/Stable-nuclear-security-order/1>.
- Ahmar, M. 2001. Rationalizing the Concept of Confidence-Building Measures. In *The Challenge of Confidence-Building in South Asia*. Edited by M. Ahmar. New Delhi: Har-Anand Publications Pvt. Ltd.
- Ahmed, A. 2010. Military Doctrines: Next Steps. *IDSAs Comment*, 16 August. Available at [http://www.idsa.in/idsacomments/MilitaryDoctrinesNextsteps\\_aahmed\\_160810](http://www.idsa.in/idsacomments/MilitaryDoctrinesNextsteps_aahmed_160810).
- Ahmed, A. 2009. Exit Points and the Updation of Cold Start Doctrine. *IDSAs Strategic Comments*, 22 April. Available at <http://www.idsa.in/publications/stratcomments/AliAhmed220409.ht>.
- Ahmed, A. 2009. Reviewing India's Nuclear Doctrine. *IDSAs Policy Brief*, 24 April. Available at [http://www.idsa.in/policy\\_briefs/AliAhmedIndiaNuclearDoctrine.pdf](http://www.idsa.in/policy_briefs/AliAhmedIndiaNuclearDoctrine.pdf).

- Ahmed, E. 1985. *SARC: Seeds of Harmony*. Dhaka: University Press.
- Ahmed, I. 2002. The 1947 Partition of India: A Paradigm for Pathological Politics in India and Pakistan. *Asian Ethnicity*, 3(1), 9–28.
- Akhtar, H. 2002. US Assured Pakistan Will Not Begin War: Musharraf, Armitage Hold Talks. *Dawn*, 8 June.
- Albright, D. 2001. Securing Pakistan's Nuclear Weapons Complex. Institute for Science and International Security. Available at <http://www.isis-online.org>.
- Albright, D. and Brannan, P. 2007. Chasma Nuclear Site in Pakistan with Possible Reprocessing Plant. The Institute for Science and International Security, 18 January. Available at <http://www.isis-online.org/publications/southasia/chashma.pdf>.
- Albright, D. and Brannan, P. 2006. Commercial Satellite Imagery Suggests Pakistan is Building a Second, Much Larger Plutonium Production Reactor: Is South Asia Headed for a Dramatic Buildup in Nuclear Arsenals? Institute for Science and International Security (ISIS), July. Available at <http://www.isis-online.org/publications/southasia/newkhushab.pdf>.
- Arms Control Association. 1989. *Arms Control and National Security; An Introduction*. Washington, DC: The Arms Control Association.
- Arquilla, J. 1997. Nuclear Weapons in South Asia: More May Be Manageable, *Comparative Strategy*, 16(1), 13–31.
- Ashraf, T.M. 2003. *Aerospace Power: The Emerging Strategic Dimension*. Peshawar: PAF Book Club.
- Assef Fears War with India over Water. 2010. *The News International*, 3 January.
- Assessing Pakistan's Nuclear First-Use Option 2004. *Defence Journal*, 8(2).
- Badri Maharaj, S. Ballistic Missile Defence for India. n.d. *Bharat Rakshak*. Available at <http://www.bharat-rakshak.com/IAF/Info/BMD.html>.
- Bagchi, I. 2009. Why China is Mad at India?. 18 June. Available at <http://blogs.timesofindia.indiatimes.com/Globespottting/entry/when-asian-giants-collide>.
- Bagla, P. 2009. INS Arihant is an Indian Design: Anil Kakodkar. *The Hindu*, 16 August.
- Bajpai, K. 2001. Managing a Strategic Triangle: India, China and Pakistan. In *Conflict and Peacemaking in South Asia*. Edited by P. Sahadevan.

- New Delhi: Lancer's Books, 81–105.
- Bajpai, K. 1999. CBMs – Contexts, Achievements, Functions. In *Confidence Building Measures in South Asia*. Edited by D. Banerjee. Colombo: Regional Centre for Strategic Studies.
- Bajpai, K.P., Chari, P.R., Cheema, P.I., Cohen, S.P. and Ganguly, S. 1995. *Brasstacks and Beyond: Perception and Management of Crisis in South Asia*. New Delhi: Manohar Publishers and Distributors.
- Banerjee, S.S. 2006. *India's Security Dilemmas: Pakistan & Bangladesh*. London and New York: Anthem Press.
- Baruah, A. 1999a. The Bus to Pakistan. *Frontline*, 16(5), 27 February–12 March. Available at <http://www.thehindu.com/fline/fl1605/16050040.htm> [accessed 12 August 2009].
- Baruah, A. 1999b. Kargil Impeded Pact on *Kahsmir*: Niaz Naik. *The Hindu*, 15 September.
- Basrur, R.M. 2010. Who's Afraid of Missile Defence? In *The Future of War and Peace in Asia*. Edited by N.S. Sisodia and S. Kalyanaraman. New Delhi: Magnum Books.
- Basrur, R.M. 2008. *South Asia's Cold War: Nuclear Weapons and Conflict in Comparative Perspective*. Abingdon and New York: Routledge.
- Basrur, R.M. 2007. India's Nuclear Policy. In *A Military History of India and South Asia: From the East India Company to the Nuclear Era*. Edited by D.P. Marston and C.S. Sundaram. Bloomington: Indiana University Press.
- Basrur, R.M. 2006. *Minimum Deterrence and India's Nuclear Security*. Stanford, CA: Stanford University Press.
- Basrur, R.M. 2006. Nuclear Deterrence Thinking in Pakistan. Paper presented at the 5th Workshop on International Relations Theory and South Asia. 27–29 March. New Delhi: University of Pennsylvania Institute for the Advanced Study of India.
- Basrur, R.M. 2005. Coercive Diplomacy in A Nuclear Environment: The December 13 Crisis. In *Prospects for Peace in South Asia*. Edited by Rafiq Dossani and Henry Rowen. Stanford, CA: Stanford University Press.
- Basrur, R.M. 2005. Nuclear Command-and-Control and Strategic Politics in South Asia. *Contemporary South Asia*, 14(2), 155–61.

- Basrur, R., Hoyt, T., Hussain, R. and Mandal, S. 2009. *The Mumbai Terrorist Attacks: Strategic Fallout*. Singapore: S. Rajaratnam School of International Studies, Nanyang Technological University.
- Baweja, H. ed. 2009. *26/11: Mumbai Attacked*. New Delhi: Roli Books.
- Bedi, R. 2002. A Strike Staunched. *Frontline*, 21 June.
- Bhaumik, S.N. 1999. The Dove at War. *India Today*, 12 July, 26–27.
- Bhutto, Z.A. 1979. *If I am Assassinated*. New Delhi: Vikas.
- Bidwai, P. 1999. US Brokers Kargil Peace but Problems Remain. *Asia Times*, 7 July.
- Bidwai, P. and Vainik, A. 1999. *South Asia on a Short Fuse: Nuclear Politics and the Future of Global Disarmament*. New Delhi: Oxford University Press.
- Binder, L. 1958. The Middle East as a Subordinate State System. *World Politics*, 10, 408–429
- Biringer, K.L. 2001. Missile Threat Reduction and Monitoring in South Asia. In *The Stability–Instability Paradox: Nuclear Weapons and Brinkmanship in South Asia*. Edited by M. Krepon and C. Gagné. Report 38. Washington DC: Stimson Center.
- Blair, B.G. 2003. The New Nuclear Threat. *Daily Times*, 5 May.
- Blackett, P.M.S. 1962. *Studies of War: Nuclear and Conventional*. Westport, CT: Greenwood Press.
- Booth, K. and Wheeler, N.J. 2008. *The Security Dilemma: Fear, Cooperation and Trust in World Politics*. New York: Palgrave Macmillan.
- Bose, S. and Jalal, A. 2004. *Modern South Asia: History, Culture, Political Economy*. 2nd edition. London and New York: Routledge.
- Bowen, C.B. and Wolven, D. 1999. Command and Control Challenges in South Asia. *The Nonproliferation Review*, 6(3), 25–35.
- Bowman, L.W. 1968. The Subordinate State System of Southern Asia. *International Studies Quarterly*, 12(3), 231–62.
- Bracken, P. 1999. *Fire in the East: The Rise of Asian Military Power and the Second Nuclear Age*. New York: HarperCollins Publishers.
- Bracken, P. 2003. The Structure of the Second Nuclear Age. *Orbis*, 47(3), 399–413.
- Brecher, M. 1963. International Relations and Asian Studies: The Subordinate State System of Southern Asia. *World Politics*, 15(2).

- Brown, P.J. 2009. India–US Build Stronger Ties in Space. *Asia Times*, 7 August. Available at [http://www.atimes.com/atimes/South\\_Asia/KH07Df02.html](http://www.atimes.com/atimes/South_Asia/KH07Df02.html).
- Brulliard, K. 2010. Rhetoric Grows Heated in Water Dispute Between India, Pakistan. *The Washington Post*, 28 May.
- Burns, J.F. 1998. India's New Defense Chief Sees Chinese Military Threat. *New York Times*, 5 May.
- Burns, Richard D. ed. 1993. *Encyclopaedia of Arms Control and Disarmament*. New York: Maxwell Macmillan International.
- Burr, W. and Richelson, J.T. 2000–2001. Whether to Strangle the Baby in the Cradle: The United States and the Chinese Nuclear Program. *International Security*, 25(3), 54–99.
- Butterfield, H. 1951. *History and Human Relations*. London: Collins.
- Cabinet Committee on Security Reviews Progress in Operationalizing India's Nuclear Doctrine, 2003. 4 January. Available at <http://pib.nic.in/archieve/lreleng/lyr2003/rjan2003/04012003/r040120033.html>.
- Cambone, S. 2000. An Inherent Lesson in Arms Control. *The Washington Quarterly*, 23(2), 207–218.
- Cantori, L.J. and Spiegel, S.L. 1970. *The International Politics of the Regions: A Comparative Approach*. Englewood Cliffs, N.J.: Prentice-Hall.
- Carranza, M.E. 2003. Avoiding Nuclear Catastrophe: Arms Control after the 2002 India–Pakistan Crisis. *International Politics*, 40(3), 313–39.
- Chakma, B. 2009. South Asia's Realist Fascination and the Alternatives, *Contemporary Security Policy*, 30(3), 395–420.
- Chakma, B. 2009. *Pakistan's Nuclear Weapons*. Abingdon, Oxford and New York: Routledge.
- Chakma, B. 2007. Pakistani Missiles: Explaining Procurement and Strategic Implications. *BISS Journal*. Bangladesh Institute of International and Strategic Studies, 28(1), 45–69.
- Chakma, B. 2005. Toward Pokhran II: Explaining India's Nuclearization Process. *Modern Asian Studies*, 39(1), 189–236.
- Chakma, B. 2004. *Strategic Dynamics and Nuclear Weapons Proliferation in South Asia*. Bern: Peter Lang.

- Chakma, B. 2002. Road to Chagai: Pakistan's Nuclear Programme, Its Sources and Motivations, *Modern Asian Studies*, 36(4), 871–912.
- Chakravarty, S. 2001. The Day India Was Targeted. *India Today*, 24 December, 22–32.
- Chalk, P. 2001. Pakistan's Role in the Kashmir Insurgency. *Jane's Intelligence Review*, 1 September. Reproduced on the website of the RAND Corporation. Available at <http://www.rand.org>.
- Chandran, S. 2004. *Limited War with Pakistan: Will It Secure India's Interests?* ACDIS Occasional Paper, University of Illinois at Urbana-Champaign, August.
- Chankdasekharan, S. 1999. Cox Report and its Impact on Indian Security. *South Asia Analysis Group Papers*, 16 June.
- Chandrasekaran, R. and Lakshmi, R. 2002. Indian Leaders Talk of War Over Kashmir; No Deadline Set for Pakistan To Move Against Militants. *Washington Post*, 24 May.
- Chari, P.R. 2001. Nuclear Restraint, Nuclear Risk Reduction, and the Security–Insecurity Paradox in South Asia. In *The Stability–Instability Paradox: Nuclear Weapons and Brinkmanship in South Asia*. Edited by M. Krepon and C. Gagné. Report 38. Washington DC: Stimson Center.
- Chari, P.R. 2001. Security in South Asia: Indian Perspective. In *Security in South Asia Policy Study Series II*. Kathmandu: Institute of Foreign Affairs.
- Chari, P.R. 2000. India's Nuclear Doctrine: Confused Ambitions. *Nonproliferation Review*. 7(3), 123–35.
- Chari, P.R., Cheema, P.I. and Cohen, S.P. 2007. *Four Crises and A Peace Process: American Engagement in South Asia*. Washington, DC: Brookings Institution Press.
- Chaudhury, S.N. 2000. Iran to India Natural Gas Pipeline: Implications for Conflict Resolution and Regionalism in India, Iran and Pakistan. Available at <http://www1.american.edu/TED/iranpipeline.htm> [accessed 1 August 2009].
- Cheema, P.I. 1999. CBMs and South Asia. In *Confidence Building Measures in South Asia*. Edited by D. Banerjee. Colombo: Regional Centre for Strategic Studies.
- Cheema, Z.I. 2000. Pakistan's Nuclear Use Doctrine and Command and Control. In *Planning the Unthinkable: How New Powers Will Use*



- Nuclear, Biological and Chemical Weapons*. Edited by P.R. Lavoy, S.D. Sagan, and J.J. Wirtz. Ithaca, NY: Cornell University Press.
- Chellaney, B. 2002. *The India–Pakistan–China Strategic Triangle and the Role of Nuclear Weapons*, Proliferation Paper, Institut français des relations internationales in collaboration with the Atomic Energy Commission (CEA), Winter.
- Chellaney, B. 2001. India's Nuclear Planning, Force Structure, Doctrine and Arms Control Posture. In *Nuclear Materials Issue and Concerns*, vol. 11. Edited by D.B. Rao. New Delhi: Discovery Publishing House.
- Chellaney, B. 1999. *Securing India's Future in the New Millennium*. Delhi: Orient Longman.
- Chengappa, R. 2000. *Weapons of Peace: The Secret Story of India's Quest to be a Nuclear Power*. New Delhi: HarperCollins.
- Chengappa, R. 1999. Face-Saving Retreat. *India Today*, 19–26 July. Available at <http://www.india-today.com/itoday/19071999/cover.html> [accessed 25 August 2010].
- Chengappa, R. 1999. On High Ground. *India Today*, 28 June.
- Cherian, J. 2002. A US Role and Agenda. *Frontline*, 1(11), 25 May–7 June. Available at <http://www.frontlineonnet.com/fl1911/19110170.htm>.
- Cherian, J. 1998. Face-off in Colombo. *Frontline*, 15(17), 15–28 August. Available at <http://www.hinduonnet.com/fline/fl1517/15170140.htm> [accessed 6 August 2009].
- China Attacks Indo–US Nuclear Deal. 2005. Rediff News, 4 November. Available at <http://www.rediff.com/news/2005/nov/04ndeal.htm>.
- China is Enemy No 1: George. 1998. *The Indian Express*, 4 May. Available at <http://www.expressindia.com/news/ie/daily/19980504/12450024.html>.
- China is Potential Threat Number One. 1998. *The Indian Express*, 4 May. Available at <http://www.expressindia.com/news/fe/daily/19980504/12455554.html>.
- China Wants India to Block Dalai Lama's Dharamsala Meet. 2008. *Times of India*, 13 November. Available at [http://timesofindia.indiatimes.com/World/China\\_wants\\_India\\_to\\_Block\\_Dalai\\_Lamas\\_Dharamshala\\_meet/articleshow/3709658.cms](http://timesofindia.indiatimes.com/World/China_wants_India_to_Block_Dalai_Lamas_Dharamshala_meet/articleshow/3709658.cms). See also Bagchi 2009.
- China Greatest Threat to India. 1998. *Financial Times*, 5 May.

- China's Nuclear Exports and Assistance to Pakistan. 1999. Center for Nonproliferation Studies, Monterey Institute of International Studies, Monterey, CA. August. Available at <http://cns.miis.edu/research/india/china/npakpos.htm>.
- Chinese Essay Sparks Outcry in India. 2009. *Financial Times*, 12 August. Available at [http://www.ft.com/cms/s/0/bbe4b39e-8764-11de-9280-00144feabdc0.html?ncklick\\_check=1](http://www.ft.com/cms/s/0/bbe4b39e-8764-11de-9280-00144feabdc0.html?ncklick_check=1).
- Clancy, T. (with Zinni, T. and Koltz, T.) 2004. *Battle Ready*. New York: G.P. Putnam's Sons.
- Clinton, B. 2004. *My Life*. New York: Knopf.
- Cohen, A. 1998. *Israel and the Bomb*. New York: Columbia University Press.
- Cohen, S.P. 2004. *The Idea of Pakistan*. Washington, DC: The Brookings Institution.
- Cohen, S.P. 2002. *India: Emerging Power*. New Delhi: Oxford University Press.
- Cohen, S.P. 1998. *Nuclear Weapons and Conflict in South Asia*. Washington, DC: The Brookings Institution. Available at [http://www.brookings.edu/articles/1998/1123india\\_cohen.aspx](http://www.brookings.edu/articles/1998/1123india_cohen.aspx).
- Cohen, S.P. 1998. *The Pakistan Army*. Karachi: Oxford University Press.
- Cohen, S.P. ed. 1991. *Nuclear Proliferation in South Asia: The Prospects for Arms Control*. Boulder, CO: Westview Press.
- Cohen, S.P. and Dasgupta, S.D., eds. 2010. *Arming without Aiming: India's Military Modernization*. Washington, DC: The Brookings Institution.
- Command and Control of Nuclear Weapons. 2000. *The News*, 28 February.
- Copeland, D.C. 2003. A Realist Critique of the English School. *Review of International Studies*, 29(3), 427–41.
- Copeland, D.C. 2000. The Constructivist Challenge to Structural Realism: A Review Essay. *International Security*, 25(2), 187–212.
- Cotta-Ramusino, P. and Martellini, M. 2002. *Nuclear Safety, Nuclear Stability and Nuclear Strategy in Pakistan*. Landau Network, Como. January. Available at <http://www.mi.infn.it/~landnet/Doc/pakistan.pdf>.
- Country Profile: China. n.d. Nuclear Threat Initiative. Available at [http://www.nti.org/e\\_research/profiles/China/Nuclear/index.html](http://www.nti.org/e_research/profiles/China/Nuclear/index.html).
- Crawford, T. 2003. *Pivotal Deterrence: Third-Party Statecraft and the Pursuit of Peace*. Ithaca, NY: Cornell University Press.

- Curtis, L. 2009. China's Military and Security Relationship with Pakistan. Testimony before the US–China Economic and Security Review Commission, 26 May.
- Dash, K.C. 1996. The Political Economy of Regional Cooperation in South Asia. *Pacific Affairs*, 69(2), 185–209.
- Dialogue Can't be Kashmir-centric: Powell. 2002. *The Hindu*, 19 January.
- Diehl, P. ed. 1998. *The Dynamics of Enduring Rivalries*. Urbana and Chicago: University of Illinois Press.
- Diehl, P. and Goertz, G. 2001. *War and Peace in International Rivalry*. Ann Arbor: University of Michigan Press.
- Disarmament, Non-proliferation and Science Department, Ministry of Foreign Affairs, Government of Japan. 2008. *Japan's Disarmament and Non-Proliferation Policy*, 4th edition. March.
- Doerner, W.R. and Munro, R.H. 1987. Pakistan Knocking at the Nuclear Door. *Time* (US edition), 129(13), 30 March.
- Draft Report of the National Security Advisory Board on Indian Nuclear Doctrine. 1999. Available at [http://www.indianembassy.org/policy/CTBT/nuclear\\_doctrine\\_aug\\_17\\_1999.html](http://www.indianembassy.org/policy/CTBT/nuclear_doctrine_aug_17_1999.html).
- Dreze, J. and Sen, A. 2002. *India: Development and Participation*. New Delhi: Oxford University Press.
- Dunn, J. 1993. Trust. In *A Companion to Contemporary Political Philosophy*. Edited by R.E. Goodin, and P. Pettit. Oxford: Blackwell.
- Durrani, M.A. (Major General, Retd.) 2004. Pakistan's Strategic Thinking and the Role of Nuclear Weapons. Cooperative Monitoring Centre Occasional Paper 37, SAND 2004 3375P, Sandia National Laboratories, July. Available at <http://www.cmc.sandia.gov/cmc-papers/sand2004-3375p.pdf>.
- Ernett, E. 1997. Nuclear Stability and Arms Sales to India: Implications for US Policy. *Arms Control Today*, 27(5).
- Evans, G. 2009. Getting to Zero: Interview with Gareth Evans, Co-Chair of the International Nuclear Non-Proliferation and Disarmament Commission. International Crisis Group, April. Available at [www.crisisgroup.org/home/index.cfm?id=6039&1=1](http://www.crisisgroup.org/home/index.cfm?id=6039&1=1).
- Evolution of India's Nuclear Policy (Paper laid on the table of the House), 27 May 1998. Available at <http://www.indianembassy.org/pic/nuclearpolicy.htm>.

- Ex-Army Head: Pakistan Had Nuclear Arsenal in 1989. 2001. *New York Times*, 26 June.
- Fair, C. 2005. Learning to Think the Unthinkable: Lessons from India's Nuclear Tests. *The India Review*, 4(1), 23–58.
- Feaver, P.D. and Gelpi, C. 2004. *Choosing Your Battles: American Civil–Military Relations and the Use of Force*. Princeton, NJ: Princeton University Press.
- Fernandes Sounds Warning on China. 1998. *Hong Kong Standard*, 5 May.
- Finley, D.J., Holsti, O.R. and Fagen, R.R. *Enemies in Politics*. Chicago, IL: Rand McNally.
- Fisher, R.D. and Dori, J.T. 1998. The Strategic Implications of China's Nuclear Aid to Pakistan. *Executive Memorandum*, No. 532, Heritage Foundation, 16 June. Available at <http://www.heritage.org/research/asiaandthepacific/em532.cfm>.
- Foot, R. 1997. *The Practice of Power: US relations with China since 1949*. Oxford: Oxford University Press.
- Friedman, C. and Schaffer, T. 2009. India's Energy Options: Coal and Beyond. *CSIS South Asia Monitor*. No. 132, 24 August.
- G-8 Condemns Violation of the LoC. 1999. *The Hindu*, 21 June.
- Gagné, C. 2001. Nuclear Risk Reduction in South Asia: Building on Common Ground. In *The Stability–Instability Paradox: Nuclear Weapons and Brinkmanship in South Asia*, Report No. 38. Edited by M. Krepon and C. Gagné. Washington, DC: The Henry L. Stimson Center.
- Ganguly, S. 2010. If Pakistanis Strike India Again. *Current History*. 109(726).
- Ganguly, S. 2008. Nuclear Stability in South Asia. *International Security*, 33(2), 45–70.
- Ganguly, S. 2002. *Conflict Unending: India–Pakistan Tensions Since 1947*. New Delhi: Oxford University Press.
- Ganguly, S. 2001. *Conflict Unending: India–Pakistan Tensions Since 1947*. New York: Columbia University Press.
- Ganguly, S. 1999. *The Crisis in Kashmir: Portents of War, Hopes of Peace*. Cambridge: Cambridge University Press and the Woodrow Wilson Centre.
- Ganguly, S. 1999. India's Pathway to Pokhran II: The Prospects and Sources of New Delhi's Nuclear Weapons Program. *International*

- Security*, 23(4), 148–77.
- Ganguly, S. 1995. India–Pakistan Nuclear Issues and the Instability/Instability Paradox. *Studies in Conflict and Terrorism*, 18(4), 325–34.
- Ganguly, S. 1983. Why India Joined the Nuclear Club. *Bulletin of the Atomic Scientists*, 39(4), 30–33.
- Ganguly, S. and Hagerty, D.T. 2005. *Fearful Symmetry: India–Pakistan Crises in the Shadow of Nuclear Weapons*. New Delhi: Oxford University Press.
- Ganguly, S. and Kapur, S.P. 2010. *India, Pakistan and the Bomb: Debating Nuclear Stability in South Asia*. New York: Columbia University Press.
- Ganguly, S. and Kapur, S.P. eds. 2009. *Nuclear Proliferation in South Asia: Crisis Behaviour and the Bomb*. London: Routledge.
- Ganguly, S. and Kapur, S.P. 2010. The Sorcerer’s Apprentice: Islamist Militancy in South Asia. *The Washington Quarterly*, 33(1), 47–59.
- Ganguly, S. and Kraig, M.R. 2005. The 2001–2002 Indo–Pakistani Crisis: Exposing the Limits of Coercive Diplomacy. *Security Studies*, 14(2), 290–324.
- Ganguly, S. and Wagner, R.H. 2004. India and Pakistan: Bargaining in the Shadow of Nuclear War. *Journal of Strategic Studies*, 27(3), 479–507.
- Gannon, K. 1999. ‘Balance of Terror’ Helps Peace. *The Associated Press*, 16 February.
- Garthoff, R.L. 1984. Berlin 1961: The Record Corrected. *Foreign Policy*, No. 84, 142–56.
- George in the China Shop. *India Today*, 1998. 18 May.
- Gill, J.H. 2003. *Military Operations During the Kargil Conflict*. Washington, DC: US National Defense University.
- Gilpin, R. 1981. *War and Change in World Politics*. New York: Cambridge University Press.
- Glaser, C.L. 1997. The Security Dilemma Revised. *World Politics*, 50, October.
- Glaser, C.L. 1990. *Analyzing Strategic Nuclear Policy*, Princeton, NJ: Princeton University Press.
- Global Concerns over Pakistani Nuclear Arsenal. 2009. Available at <http://www.chowrangi.com/global-concerns-over-pakistani-nuclear-arsenal.html> [accessed 3 August 2009].

- Glynn, P. 1993. Critics of Arms Control and Disarmament. In *Encyclopaedia of Arms Control and Disarmament*, vol. 1. Edited by R.D. Burns. New York: Maxwell Macmillan International.
- Goldblat, J. 2003. *Arms Control: The New Guide to Negotiations and Agreements*. London: Sage.
- Goldstein, A. 2000. *Deterrence and Security in the 21st Century: China, Britain, France, and the Enduring Legacy of the Nuclear Revolution*. Stanford, CA: Stanford University Press.
- Gormley, D.M. 2008. *Missile Contagion: Cruise Missiles Proliferation and the Threat to International Security*. Westport, Conn: Praeger Publishers.
- Government of India, National Security Council Secretariat. 2000. *From Surprise to Reckoning: The Kargil Review Committee Report*. New Delhi: Sage Publication Pvt. Ltd.
- Graham, T.W. 1986. Shiva and Allah: Nuclear Futures for India and Pakistan. The Wilson Centre, Asia Program, Occasional Paper Number 28.
- Gray, C.S. 1999. *Second Nuclear Revolution*. Boulder, Colorado: Lynne Rienner.
- Gray, C.S. 1993. *Weapons Don't Make War: Policy, Strategy, and Military Technology*. Kansas: University Press Kansas.
- Gray, C.S. 1984. Arms Control: Problems. In *Arms Control: Ethics, Strategy, Politics*. Edited by R.J. Woolsey. San Francisco, CA: ICS Press.
- Gregory, S. 2009. The Terrorist Threat to Pakistan's Nuclear Weapons. *CTC Sentinel*, 2(7).
- Gregory, S. 2007. Nuclear Command and Control in Pakistan. *Defense and Security Analysis*, 23(3).
- Gregory, S. 2001. A Formidable Challenge: Nuclear Command and Control in South Asia. *Disarmament Diplomacy*, 54, February.
- Gregory, S. 2001. Nuclear Command and Control in South Asia. In *Controlling Weapons of Mass Destruction: Findings from USIP-sponsored Projects*. Edited by D.M. Ollapally. Washington DC: US Institute of Peace, September, 32–36.
- Guihong, Z. 2005. The Rise of China: India's Perceptions and Responses. *South Asian Survey* (New Delhi), 13(1), 93–102.

- Gupta, S. 1999. Let's Discuss the N-issue, the Missile Issue. *The Indian Express*, 2 February. Available at <http://www.indianexpress.com/ie/daily/19990203/ige03051.html> [accessed 6 August 2009].
- Gupta, S. 1966. The Indian Dilemma. In *A World of Nuclear Powers?* Edited by A. Buchan. Englewood Cliffs, NJ: Prentice Hall.
- Hagerty, D.T. 2009. The Kargil War: An Optimistic Assessment. In *Nuclear Proliferation in South Asia: Crisis Behaviour and the Bomb*. Edited by Sumit Ganguly and S. Paul Kapur. London: Routledge.
- Hagerty, D.T. 2000. Kashmir and the Nuclear Question Revisited. In *Pakistan 2000*. Edited by C. Baxter and C.H. Kennedy. Lexington, MA: Lexington Books.
- Hagerty, D.T. 1995/96. Nuclear Deterrence in South Asia: The 1990 Indo-Pakistani Crisis. *International Security*, 20(3), 79–114.
- Hagerty, D.T. 1993. The Power of Suggestion: Opaque Proliferation, Existential Deterrence and the South Asian Nuclear Arms Competition. *Security Studies*, 2(3–4), 256–83.
- Hammond, G.T. 1993. *Plowshares into Swords: Arms Races in International Politics, 1840–1991*. Columbia, NC: University of North Carolina Press.
- Hasanuzzaman, A.M. 2002. Political and Security Roles of SAARC in the 21st Century: A Bangladesh Perspective. In *SAARC in the 21st Century: Towards a Cooperative Future*. Edited by D. Banerjee. Colombo: Regional Centre for Strategic Studies.
- Hashmi, A.S. 2009. South Asia's Growing Vulnerability to Extremism and Terrorism in the Coming Decade: Is there a Way Forward? *Focus* (Islamabad... IRS), XXVII(1).
- Hathaway, H.M. 2003. The US–India Courtship: From Clinton to Bush. In *India as an Emerging Power*. Edited by S. Ganguly. London: Frank Cass.
- Holmes, J., Winner, A.C., Yoshihara, T. 2009. *Indian Naval Strategy in the 21st Century*. London: Taylor and Francis.
- Holslag, J. 2010. *China and India: Prospects for Peace*. New York: Columbia University Press.
- Horner, D. 2010. China, Pakistan Set Reactor Deal. *Arms Control Today*, 40, June.

- Horner, D. 2009. Indian Scientist Triggers Debate on Testing. *Arms Control Today*, 39, October.
- Hoyt, T.D. 2001. Pakistani Nuclear Doctrine and the Dangers of Strategic Myopia. *Asian Survey*, XLI(6).
- Hungry Number up 100 million in South Asia. 2009. UNICEF Report. *ExpressIndia*, 3 June. Available at <http://www.indianexpress.com/news/hungry-number-up-100-million-in-south-asia-unicef/470564/>.
- Hussain, M. 1994. The Nuclear Issue and South Asia: Security via Deterrence. *The News*, 24 April.
- Hussain, N. Nuclearization of South Asia and Future of Non-proliferation. n.d. *Journal of Political Studies*. Available at <http://www.pu.edu.pk/polsc/jops/Currentissue-pdf/NAZIR%20HUSSAIN.pdf>.
- Hussain, R. 2001–02. Thinking about Nuclear Use and ‘No First Use.’ *National Development and Security* (Rawalpindi), X(2), 1–13.
- Hussain, S.Z. 2009. IAF Moving Sukhoi Base to Northeast to Thwart Chinese Threat. *The Hindustan Times*, 9 June.
- Hyder, S. 1987. *Foreign Policy of Pakistan: Reflections of an Ambassador*. Lahore: Progressive Publishers.
- IAF Bombs Militants Posts. 1999. *The Hindu*, 27 May.
- Ibrahim, Y.M. 2009. Oil Shocks and the Reshaping of the Oil Industry. *The 1979 ‘Oil Crisis’: Legacy, Lessons, and Lasting Reverberations*. The Middle East Institute, Special Issue of Viewpoints, August.
- India Against Pak–China Nuclear Deal. 2010. *Times of India*, 17 June.
- India Arms for the Future. 2009. *Strategic Comments*, 15(1), February.
- India Asks Pakistan to Accept ‘No-First Use’ Pact. 1998. *The Independent* (Dhaka), 9 July.
- India Defense Minister Says China a Threat. 1998. *Reuters*, 18 May.
- India Destabilizing Balochistan: IGP. 2009. *News International*, 26 May. Available at <http://www.thenews.com.pk/>.
- India Explodes Nuclear Controversy. 1998. BBC News, 11 May. Available at [http://news.bbc.co.uk/onthisday/hi/dates/stories/may/11/newsid\\_3664000/3664259.stm](http://news.bbc.co.uk/onthisday/hi/dates/stories/may/11/newsid_3664000/3664259.stm) [accessed 4 August 2009].
- India Launches Nuclear Submarine. 2009. *The New York Times*, 26 July.
- India Must Exercise Restraint: Powell. 2001. *The Hindu*, 17 December.



- India, Pak Discuss Steps to Ease Tension along the Line of Control. 1999. *The Hindu*, 27 July.
- India Scraps Integrated Guided Missile Programme. 2008. *The Hindu*, 9 January.
- India's Draft Nuclear Doctrine. 1999. *Arms Control Today*, July/August. Available at <http://www.armscontrol.org/epublish/1/23>.
- India's Nuclear Forces, 2008. *Bulletin of the Atomic Scientists*, 64(5), 38–40.
- India Supporting Terror Attacks in Punjab: Sanaullah. 2009. *Daily Times*, 22 July. Available at <http://www.dailytimes.com.pk/>.
- Infiltration Will be Pushed Out in 48 Hours. 1999. *Daily Excelsior*, 17 May.
- International Institute for Strategic Studies. 2007. Nuclear Black Markets: Pakistan, A.Q. Khan and the Rise of Proliferation Networks: A Net Assessment. London: IISS.
- Intriligator, M.D. and Brito, D.I. 1989. On Arms Control. In *Security and Arms Control*, vol. 1. Edited by E.A. Kolodziej and P.M. Morgan. New York: Greenwood Press.
- Jane's Strategic Weapons Systems* 2002. Issue 39, July. Available at [http://www.pakistanidefence.com/Nuclear&Missiles/Pakistani\\_Ballistic\\_Missiles.html](http://www.pakistanidefence.com/Nuclear&Missiles/Pakistani_Ballistic_Missiles.html).
- Jaspal, Z.N. 2008. Indo–US Nuclear Deal: Altering Global Nuclear Order. *Strategic Studies*, XXVII(2 & 3).
- Jaspal, Z.N. 2008. WMD Terrorism and Pakistan: Counterterrorism. *Defense Against Terrorism Review*, 1(2), 103–113.
- Jaspal, Z.N. 2004. *Nuclear Risk Reduction Measures and Restraint Regime in South Asia*. New Delhi: Manohar.
- Jayal, B.D. 2008. The Indian Nuclear Doctrine: Good in Theory, But not Credible in Practice. *The Tribune* (Chandigarh), 11 November. Available at <http://www.tribuneindia.com/2008/20081116/edit.htm~1>.
- Jayaraman, K.S. 2009. India's Nuclear Sub Doesn't Have Working Reactor Yet. *Thaindian News*, 13 August. Available at [http://www.daijiworld.com/news/news\\_disp.asp?n\\_id=64065&n\\_tit=India%27s+Nuclear+Sub+Doesn%27t+Have+Working+Reactor+Yet](http://www.daijiworld.com/news/news_disp.asp?n_id=64065&n_tit=India%27s+Nuclear+Sub+Doesn%27t+Have+Working+Reactor+Yet).
- Jervis, R. 1989. *Meaning of the Nuclear Revolution*. Ithaca, NY: Cornell University Press.

- Jervis, R. 1984. *The Illogic of American Nuclear Strategy*. Ithaca, NY: Cornell University Press.
- Jervis, R. 1978. Cooperation under the Security Dilemma. *World Politics*, 30(2).
- Jervis, R. 1976. *Perception and Misperception in International Politics*. Princeton NJ: Princeton University Press.
- Jian, C. 2001. *Mao's China and the Cold War*. Chapel Hill, NC and London: University of North Carolina Press.
- Joeck, N. 1997. *Maintaining Nuclear Stability in South Asia*, Adelphi Paper 312. London: International Institute for Strategic Studies.
- Johnston, A.I. 1995/96. China's New 'Old Thinking': The Concept of Limited Deterrence. *International Security*, 20(3), 5–42.
- Jones, D.E. and Jones, R.W. 1976. Urban Upheavals in India – the 1974 Naz and Nirman Riots in Gujarat, *Asian Survey*, 16(11), 1012–1033.
- Jones, O.B. 2009. *Pakistan: Eye of the Storm*. 3rd edition. New Haven and London: Yale University Press.
- Jones, R.W. 2005. Prospects for Arms Control and Strategic Stability in South Asia. *Contemporary South Asia*, 14(2), 191–209.
- Jones, R.W., Krepon, M. and Haider, Z., eds. 2004. *Escalation Control and the Nuclear Option in South Asia*. Washington, DC: Henry L. Stimson Center.
- Jones, R.W. and McMillan, J. 1999. The Kargil Crisis: Lessons Learned By the United States. In *Asymmetric Warfare in South Asia: The Causes and Consequences of the Kargil Conflict*. Edited by Peter R. Lavoy. Cambridge: Cambridge University Press, 2009, 252–376.
- Joshi, M. and Baweja, H. 1999. Blasting Peace. *India Today* 7 June, 12–17.
- Kamal, N. 1991. Pakistani Perceptions and Prospects of Reducing the Nuclear Danger in South Asia. *Cooperative Monitoring Centre Occasional Paper/ 6*. US: Sandia National Laboratories.
- Kampani, G. 2005. Seven Years After the Nuclear Tests: Appraising South Asia's Nuclear Realities. *NTI Issue Brief*, June. Available at [http://www.nti.org/e\\_research/e3\\_64a.html](http://www.nti.org/e_research/e3_64a.html).
- Kampani, G. 2001. Safety Concerns About the Command and Control of Pakistan's Strategic Forces, Fissile Material, and Nuclear Installations. Centre for Nonproliferation Studies, 28 September. Available at <http://cns.miis.edu/research/wtc01/spna.htm>.

- Kaplan, R. 2010. China's Grand Map: How Far Will Beijing Reach on Land and at Sea? *Foreign Affairs*, 89(3), 22–41.
- Kapur, A. 2001. *Pokhran and Beyond: India's Nuclear Behaviour*. New Delhi: Oxford University Press.
- Kapur, A. 1998. China and Proliferation: Implications for India. *China Report*, 34(3–4), 403–404.
- Kapur, S.P. 2008. Ten Years of Instability in a Nuclear South Asia. *International Security*, 33(2), 71–94.
- Kapur, S.P. 2007. *Dangerous Deterrent: Nuclear Weapons Proliferation and Conflict in South Asia*. Stanford, CA: Stanford University Press.
- Kapur, S.P. 2005. India and Pakistan's Unstable Peace: Why Nuclear South Asia is not Like Cold War Europe. *International Security*, 30(2), 127–52.
- Kargil Planned Before Vajpayee's Visit: Musharraf. 2006. *Indian Express*, 13 July.
- Karnad, B. 2008. *India's Nuclear Policy*. New Delhi: Pentagon Press.
- Karnad, B. 2002. *Nuclear Weapons and Indian Security: The Realist Foundations of Strategy*. New Delhi: Macmillan.
- Karunatilake, W. 1998. On the Side of Caution. *Outlook*, 1 June.
- Kaushik, V.K. and Mehrotra, O.N. 1980. *Nuclear Bomb – Pakistan*. New Delhi: Sopan Publishing House.
- Keohane, R.O. and Nye, J.S. 2000. *Power and Interdependence*. 3rd edition. New York: Longman.
- Khan, F.H. 2005. Comparative Strategic Culture: The Case of Pakistan. *Strategic Insights*, 4(10).
- Khan, F.H. 2005. Nuclear Command-and-control in South Asia During Peace, Crisis and War. *Contemporary South Asia*, 14(2), 163–74.
- Khan, F.H. 2003. The Independence–Dependence Paradox: Stability Dilemmas in South Asia. *Arms Control Today*, 33, October. Available at [http://www.armscontrol.org/act/2003\\_10/Khan\\_10](http://www.armscontrol.org/act/2003_10/Khan_10).
- Khan, M.A. 2010. The Indian Undersea Nuclear Deterrence and Pakistan Navy. *IPRI Journal*, 10(2), 89–111.
- Khan, M.A. 1998. Nuclearisation of South Asia and Its Regional and Global Implications. *Focus on Regional Issues*. Islamabad: Institute of Regional Studies.
- Khan, M.A. 1993. 1993 – Crucial for Nuclear Proliferation in South Asia. *The Muslim*, 10 January.

- Khan, R.Z., Colonel. 2002. Pakistan and India: Can NRRCs Help Strengthen Peace? Occasional Paper No. 49. Washington, DC: The Henry L. Stimson Center. Available at <http://www.stimson.org/southasia/pdf/nrrcsouthasia.pdf>.
- Khan, S. 2005. Nuclear Weapons and the Prolongation of the India–Pakistan Rivalry. In *The India–Pakistan Conflict*. Edited by T.V. Paul. Cambridge: Cambridge University Press.
- Khare, H. 2001. A Decisive Battle Has to Take Place. *The Hindu*, 14 December.
- Kile, S.N., Fedchenko, V., Gopalaswamy, B. and Kristensen, H. 2010. **Chapter 8**: World Nuclear Forces. *SIPRI Yearbook 2010: Armaments, Disarmament and International Security*. Oxford: Oxford University Press.
- Kim, M. 2004. India. In *Neorealism Versus Strategic Culture*. Edited by J. Gless, D.A. Howlett, S. Poore. Aldershot: Ashgate.
- Koch, C. 2000. China and Regional Security in South Asia. In *The Balance of Power in South Asia*, Emirates Centre for Strategic Studies and Research.
- Kokoshin, A.A. 1998. *Soviet Strategic Thought*. Cambridge, MA and London: MIT Press.
- Kremmer, C. 2009. Losing the Line of Control. *The Sydney Morning Herald*, 5 June, accessed from Lexis-Nexis, 5 August 2009.
- Krepon, M. 2008. Looking Back: The 1998 Indian and Pakistani Nuclear Tests. *Arms Control Today*, May. Available at <http://www.armscontrol.org/act>.
- Krepon, M. 2003. *The Stability–Instability Paradox: Misperceptions and Escalation Control in South Asia*. Stimson Center Report. Washington, DC: Henry L. Stimson, May.
- Krepon, M. 2001. Nuclear Risk Reduction: Is Cold War Experience Applicable to Southern Asia. In *The Stability–Instability Paradox: Nuclear Weapons and Brinkmanship in South Asia*. Edited by M. Krepon and C. Gagné. Washington, DC: Henry L. Stimson Center.
- Krepon, M. and Gagné, C. eds. 2001. *The Stability–Instability Paradox: Nuclear Weapons and Brinkmanship in South Asia*. Report No. 38. Washington, DC: Henry L. Stimson Center.

- Kruzel, J.J. 1981. Arms Control and American Defense Policy: New Alternatives and Old Realities. *Daedalus*, 110(1), 137–57.
- Kumar, A. Pakistan and Bangladesh Delay SAFTA Take-off. Available at [http://www.saag.org/common/uploaded\\_files/paper1891.html](http://www.saag.org/common/uploaded_files/paper1891.html) [accessed 14 August 2009].
- Kumar, C. 1995. A Chronology of Cooperation: 1947–1995. In *Brasstacks and Beyond: Perception and Management of Crisis in South Asia*. Edited by K. Bajpai et al. New Delhi: Manohar.
- Kumar, S. 1998. *Pakistan's Nuclear Weapon Programme*. In *Nuclear India*. Edited by J. Singh. New Delhi: Knowledge World.
- Ladwig 111, W.C. 2007–08. A Cold Start for Hot Wars? : The Indian Army's New Limited War Doctrine. *International Security* (MIT), 32(3), 158–98.
- Lancaster, J. 1999. Kashmir Crisis Was Defused on the Brink of War. *Washington Post*, 26 July.
- Lancaster, J. 1999. US Defused Kashmir Crisis on Brink of War. *Washington Post*, 26 July.
- Lavoy, P.R. ed. 2009. *Asymmetric Warfare in South Asia: The Causes and Consequences of the Kargil Conflict*. Cambridge: Cambridge University Press.
- Lavoy, P.R. 2007. Pakistan's Nuclear Posture: Security and Survivability. Nonproliferation Policy Education Centre, 21 January. Available at <http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=20070121-Lavoy-PakistanNuclearPosture&PDFFolder=Essays>.
- Letter of the Indian Prime Minister, Mrs. Indira Gandhi, 22 May 1974. *Pakistan Horizon*, XXVII(3), 3rd quarter 1974, 197–8.
- Lewis, J. 2007. *The Minimum Means of Reprisal: China's Search for Security in the Nuclear Age*. Cambridge, MA: MIT Press.
- Liakat Tells the Same Story Too. 2009. *The Daily Star* (Dhaka), 1 June.
- Liddell Hart, B. 1954. *Strategy*. New York: Praeger.
- Lippman, T.W. 1999. India Hinted at Attack in Pakistan. *Washington Post*, 27 June.
- Lodhi, M. 2010. India's Provocative Military Doctrine. *The News International*, 5 January.

- Loewenthal, R.G. 2007. Cold War Insights into China's New Ballistic-Missile Submarine Fleet. In *China's Future Nuclear Submarine Force*. Edited by A.S. Erickson, L.J. Goldstein, W.S. Murray and A.R. Wilson. Annapolis, MD: The China Maritime Studies Institute and the US Naval Institute Press.
- Luce, E. 2003. Vajpayee's Gambit: Can India Find a Rapprochement with Pakistan at the Third Attempt? *The Financial Times*, 9 May.
- Lynn, G.G.H. 2006. China and India: Towards Greater Cooperation and Exchange. *China: An International Journal*, 4(2), 263–84.
- Mahbub ul Haq Human Development Centre. 2006. *Human Development in South Asia 2005: Human Security in South Asia*. Karachi: Oxford University Press.
- Mahmood, A. 1998. Need for a Nuclear Doctrine. *Dawn*, 19 September.
- Malhotra, I. 1999. Row over Niaz Naik Revelations, *The Hindu*, 22 September.
- Malhotra, J. 1999. Vajpayee to Take Bus to Pak. *The Indian Express*, 3 February. Available at <http://www.indianexpress.com/ie/daily/19990204/ipo04061.html> [accessed 7 August 2009].
- Malik, M. 2004. *India–China Relations: Giants Stir, Cooperate and Compete*. Honolulu, Hawaii: APCSS: Special Assessment, October.
- Malik, M. 2003. The China Factor in the India Pakistan Conflict. *Parameters*, 33(1).
- Malik, V.P. 2006. *Kargil: From Surprise to Victory*. New Delhi: HarperCollins.
- Malik, V.P. 2002. Kargil: Where Defence Met Diplomacy. *Daily Times* (Lahore), 26 July.
- Mandelbaum, M. 1988. *The Fate of Nations*. New York: Cambridge University Press.
- Maoz, Z. and Mor, B. 2002. *Bound by Struggle: The Strategic Evolution of Enduring International Rivalries*. Ann Arbor: University of Michigan Press.
- Marks, Colonel D. 1971. The USSURI River Incident as a Factor in Chinese Foreign Policy.. *Air University Review*. July–August. Available at <http://www.airpower.maxwell.af.mil/airchronicles/aureview/1971/jul-aug/marks.html>.

- Masood, T. 2001. Confidence-Building Measures: Concepts and Application. In *The Challenge of Confidence-Building in South Asia*. Edited by M. Ahmar. New Delhi: Har-Anand Publications Pvt. Ltd.
- Mazari, S.M. 2003. *The Kargil Conflict: Separating Fact From Fiction*. Islamabad: Institute of Strategic Studies.
- Mazari, S.M. 1999. India's Nuclear Doctrine in Perspective and Pakistan's Options. *Defence Journal*, October.
- Mazari, S.M. 1999. Kashmir: Looking for Viable Options. *Defence Journal*, 3(2).
- McCarthy, R. and Hooper, J. 2002. Musharraf Ready to Use Nuclear Arms. *The Guardian*, 6 April.
- Mearsheimer, J.J. 2001. *The Tragedy of Great Power Politics*. New York: W.W. Norton.
- Meeting the Challenge: Time is Running Out*. 2009. Bipartisan Policy Centre, September.
- Menon, R. 2000. *A Nuclear Strategy for India*. New Delhi, Sage.
- Mian, Z. and Ramana, M.V. 2008. Going MAD: Ten Years of the Bomb in South Asia. *Economic and Political Weekly*, 43(26/27), 201–208.
- Mian, Z., Nayyar, A.H. and Ramana, M.V. 2004. Making Weapons, Talking Peace. *The Economic and Political Weekly*, 17 July. Available at [http://groups.yahoo.com/group/SAAN\\_/message/721](http://groups.yahoo.com/group/SAAN_/message/721) [accessed 10 August 2009].
- Millar, A. 2002. The Pressing Need for Tactical Nuclear Weapons Control. *Arms Control Today*, May. Available at [http://www.armscontrol.org/act/2002\\_05/millarmay02.asp](http://www.armscontrol.org/act/2002_05/millarmay02.asp).
- Miller, B. 2002. *When Opponents Cooperate: Great Power Conflict and Collaboration in World Politics*. Ann Arbor: University of Michigan Press.
- Missile Proliferation in South Asia: India and Pakistan's Ballistic Missile Inventories. n.d. Arms Control Association, available at <http://www.armscontrol.org/factsheets/agni>.
- Mistry, D. 2009. Complexity of Deterrence among New Nuclear States. In *Complex Deterrence: Strategy in the Global Age*. Edited by T.V. Paul, P.M. Morgan and J.J. Wirtz. Chicago: The University of Chicago Press.
- Mistry, D. 2005. The Strategic Significance of India's Nuclear, Missile, Space, and Missile Defence Forces. In *South Asia's Nuclear Security*

- dilemma: India, Pakistan, and China*. Edited by L. Dittmer. Armonk, New York: M.E. Sharpe.
- Mitra, S.K. and Schöttli, J. 2007. The New Dynamics of Indian Foreign Policy and its Ambiguities, *Irish Studies in International Affairs*, 18, 20.
- Mohan, C.R. 2009. India's Nuclear Navy: Catching up with China. *ISAS Insights*. No. 78, 20 July.
- Mohan, C.R. 2003. Nuclear Command Authority Comes into Being. *The Hindu*, 5 January.
- Mohan, C.R. 2001. Diplomacy Precedes Military Response. *The Hindu*, 15 December.
- Mohan, C.R. 2000. Fernandes Unveils 'Limited War' Doctrine. *The Hindu*, 25 January.
- Mohan, C.R. 1999. Pak. Must Pull Out Troops. *The Hindu*, 28 June.
- Mohan, C.R. 1999. Travelling Together, Hopefully. *The Hindu*, 7 February.
- Montgomery, E.B. 2006. Breaking out of the Security Dilemma: Realism, Reassurance and the Problem of Uncertainty. *International Security*, 31(2).
- Morgan, P.M. 2003. *Deterrence Now*. Cambridge: Cambridge University Press.
- Mowatt-Larssen, R. 2009. Nuclear Security in Pakistan: Reducing the Risks of Nuclear Terror. Arms Control Association, July/August. Available at [http://www.armscontrol.org/act/2009\\_07-08/Mowatt-Larssen](http://www.armscontrol.org/act/2009_07-08/Mowatt-Larssen).
- Mudur, G.S. 2009. Scientists Hurl Mud Bombs – Debate Over Pokhran Nuclear Tests Descends into Slanging Match. *The Telegraph*, 22 September.
- Mumtaz, R. 2004. Search of Peace: India–Pakistan Talks on June 27. *The Pakistan Times* (Rawalpindi), 3 June. Available at <http://pakistanimes.net/2004/06/03/top.htm>.
- Munton, D. and Welch, D.A. 2007. *The Cuban Missile Crisis: A Concise History*. Oxford: Oxford University Press.
- Musharraf, P. 2006. *In the Line of Fire: A Memoir*. London: Simon and Schuster.
- Musharraf Moved Nuclear Weapons in Kargil War. 2010. *The Nation*, 6 July.
- Musharraf's Address to the Nation. 2002. Available at <http://www.pak.gov.pk/public/presidentadress-27-5-2002.htm>.



- Naqvi, J. 2002. Crackdown Signals Easing of Tension: New Delhi Gives List of 'Terrorists' to Islamabad. *Dawn*, 1 January.
- Naqvi, J. 2002. Vajpayee Wants Meeting of Hearts with Musharraf. 4 February. Available at <http://www.dawn.com/2002/02/04/top1.htm> [accessed 19 February 2007].
- Natwar Moots Common Nuclear Doctrine for India, Pak, China. 2004. *The Daily Excelsior*, 1 June. Available at <http://www.dailyexcelsior.com/web1/04june02/main.htm>.
- Nayak, P. and Krepon, M. 2006. *US Crisis Management in South Asia's Twin Peaks Crisis*. Report 57. Washington, DC: The Stimson Center, September.
- The News* (Rawalpindi) 2007. 25 August.
- Ng, K.P. 2004. *Interpreting China's Military Power: Doctrine Makes Readiness*. London: Routledge.
- No Intelligence Failure in Kargil, says Vajpayee. 1999. *The Statesman*, 23 July. Accessed from Lexis-Nexis 12 August 2009.
- Noorani, A.G. 2003. Vajpayee's Pakistan Policy. *Frontline*, 20(11), 24 May–6 June. Available at <http://www.hinduonnet.com/fline/fl2011/stories/20030606000907500.htm>.
- Norris, R.S. and Kristensen, H. 2009. Nuclear Notebook: Pakistani Nuclear Forces, 2009. *Bulletin of the Atomic Scientists*, 65(5).
- North Korea Missile Overview. n.d. Nuclear Threat Initiative. Available at [http://www.nti.org/e\\_research/profiles/NK/Missile/index.html](http://www.nti.org/e_research/profiles/NK/Missile/index.html).
- Nuclear Anxiety: India's Letter to Clinton on Nuclear Testing. 1998. *The New York Times*, 13 May. Available at <http://www.nytimes.com/1998/05/13/world/nuclear-anxiety-indian-s-letter-to-clinton-on-the-nuclear-testing.html?pagewanted=1>.
- Nuclear Programme for Defense Purposes Only: Pakistan Renews Talks Offer to India. 1998. *The Muslim*, 4 June.
- Nuclear Threat Initiative. n.d. China's Nuclear Exports and Assistance to Pakistan. Available at <http://nti.org/db/china/npakpos.htm>.
- Oetken, J.L. 2009. Transformation of Kashmir's Insurgency: *Azaadi to Global Salafi*. In *Terrorism: Patterns of Internationalization*. Edited by J. Saikia and E. Stepanova. New Delhi: Sage.

- O'Neill, B. 1999. *Honor, Symbols and War*. Ann Arbor: University of Michigan Press.
- Opening Remarks of the National Security Adviser Mr Brajesh Mishra at the Release of the Draft Report and Draft Report of the National Security Advisory Board on Indian Nuclear Doctrine. n.d. Available at <http://meaindia.nic.in/disarmament/dm17Aug99.htm>.
- Osgood, C.E. 1969. *An Alternative to War or Surrender*. 2nd edition. Chicago: University of Illinois Press.
- Our correspondent. 2009. ISRO's Feat a Civil Show of Missile Muscle. *Deccan Chronicle*, 27 September.
- Pak Defence Strong Says Army Chief. 1999. *Independent*, 19 April.
- Pak Takes a U-turn to Block Fissile Cut-off Treaty. *The Indian Express*, 2009. 17 August. Available at <http://www.expressindia.com/latest-news/Pak-takes-a-Uturn-to-block-fissile-cutoff-treaty/502947/>.
- Pakistan Calls for UN Intervention. 1999. *The News*, 29 May.
- Pakistan Criticises India's N-Submarine Launch. 2009. North-East India News, 3 August. Available at [http://www.ndtv.com/news/india/pakistan\\_criticises\\_india\\_n-submarine\\_launch.php](http://www.ndtv.com/news/india/pakistan_criticises_india_n-submarine_launch.php).
- Pakistan Refuses to Take Action Against Laskar. *Hindustan Times*, 16 December.
- Pakistan's Nuclear Forces. 2009. *Bulletin of the Atomic Scientists*, 65(5), 82–89.
- Pakistan Warns India. 1999. *The Statesman*, 27 May.
- Pande, S. 1999. Nuclear Weapon-Free Zone in South Asia. *Strategic Analysis*, 22(11).
- Pande, S. 1991. *Pakistan's Nuclear Policy*. New Delhi: D.K. Fine Arts Press.
- Pandit, R. 2009. Army Reworks War Doctrine for Pakistan, China. *Times of India*, 20 December.
- Pandit, R. 2009. India Lags Behind Pakistan in Missiles. *The Times of India*, 2 February. Available at <http://timesofindia.indiatimes.com/India/India-lags-behind-Pakistan-in-missiles/articleshow/4060400.cms>.
- Pandit, R. 2009. India Reworks War Doctrine for Pakistan, China. *Times of India*, 30 December.

- Pandit, R. 2009. India Step Closer to Getting N-Sub. *The Times of India*. 29 December.
- Pandit, R. 2009. India Surprised by Chinese Fuss over Agni-V. *The Times of India*. 17 October.
- Pant, H.V. 2010. China's Naval Expansion in the Indian Ocean and the India-China Rivalry. *The Asia-Pacific Journal*, 3 May.
- Pant, H.V. 2008. *Contemporary Debates in Indian Foreign and Security Policy*. London: Palgrave Macmillan, 91–92.
- Pant, H.V. 2005. India's Nuclear Doctrine and Command Structure: Implications for India and the World. *Comparative Strategy*, 24, 277–93.
- Pant, R. 2009. N-submarine to Give India Crucial Third Leg of Nuke Triad. *The Times of India*, 27 July. Available at <http://timesofindia.indiatimes.com/NEWS/India/N-submarine-to-give-India-crucial-third-leg-of-nuke-triad/articleshow/4823578.cms>.
- Paul, T.V. 2005. *The India-Pakistan Conflict: An Enduring Rivalry*. Cambridge: Cambridge University Press.
- Paul, T.V. 2003. Chinese-Pakistani Nuclear/Missile Ties and the Balance of Power. *The Nonproliferation Review*, 10(2), 21–29.
- Perkovich, G. 2001. Pakistan's Nuclear Dilemma, Carnegie Proliferation Roundtable. 26 September. Available at [www.ceip.org/npp](http://www.ceip.org/npp).
- Perkovich, G. 2000. *India's Nuclear Bomb: The Impact on Global Proliferation*. New Delhi: Oxford University Press.
- Perlez, J., Sanger, D.E. and Schmitt, E. 2010. Nuclear Fuel Memos Expose Wary Dance with Pakistan. *The New York Times*, 30 November.
- PM's Statement in Parliament on Bilateral talks with United States, 15 December, 1998. Available at [http://www.indianembassy.org/special/cabinet/Primeminister/pm\(india-us\).htm](http://www.indianembassy.org/special/cabinet/Primeminister/pm(india-us).htm).
- Posen, B.R. 1984. *The Sources of Military Doctrine: France, Britain, and Germany Between the World Wars*. Ithaca, NY: Cornell University Press.
- Prasad, K.V. 2010. Agni-V to be Test-fired Within a Year: Saraswat. *The Hindu*, 11 February.
- Press Briefing by Senior Administration Official on President's Meeting with Prime Minister Sharif of Pakistan. 1999. Office of the Press Secretary, The White House, 4 July. Available at <http://www.fas.org/news/pakistan/1999/990704-pak-wh2.htm>.

- Press Trust of India. 2009. INS Arihant to Take Long Time to Become Operational: Experts. *The Times of India*. 26 July.
- Press Trust of India. 2003. First Strategic Forces Command Established in India. *The Indian Express*. 4 January.
- Pubby, M. 2009. Pak Commander Blows the Lid on Islamabad's Kargil Plot. *Indian Express*, 12 June.
- Qadir, S. 2002. An Analysis of the Kargil Conflict 1999. *RUSI JOURNAL*, 147(2), 24–30.
- Qadir, S. 2002. Op-ed: Nuclear South Asia: Reducing Risks. *Daily Times*, 11 May. Available at <http://www.dailytimes.com.pk/default.asp?date=5/11/02>.
- Quinlan, M. 2005. India–Pakistan Deterrence Revisited. *Survival*, 47(3), 103–16.
- Rafique, N. 2006. Indo–Pakistan Relations: Latest Trends. In *Comprehensive Security in South Asia*. Edited by D.R. Dahal and N.N. Pandey. New Delhi: Manohar Publishers.
- Raghavan, V.R. 2002. *Siachen: Conflict Without End*. New Delhi: Viking.
- Raghavan, V.R. 2000. Limited War and Strategic Liability. *The Hindu*. 2 February. Available at <http://www.hinduonnet.com>.
- Rais, R.B. 2005. Conceptualizing Nuclear Deterrence: Pakistan's Posture. *India Review*, 4(2), 144–72.
- Rajan, D.S. 2009. India's Place in China's South Asia Strategy. *South Asia Analysis Group, Paper No. 3127*, 1 April. Available at <http://www.southasiaanalysis.org/%5Cpapers32%5Cpaper3127.html>.
- Ramana, M.V. 2009. Ten Years after Pokharan: Deeper into the Morass. *The Hindu* (New Delhi), 11 May. Available at <http://www.hindu.com/mag/2008/05/11/stories/200851150020100.htm>.
- Ramana, M.V., Rajaraman, R. and Mian, Z. 2004. Nuclear Early Warning in South Asia: Problems and Issues. *Economic and Political Weekly* (Mumbai), 39(3), 279–84.
- Ramanna, R. 1991. *Years of Pilgrimage*. New Delhi: Viking.
- Ramberg, B. 1980. *Nuclear Power Plants as Weapons for the Enemy: An Unrecognized Peril*. Berkeley, CA: University of California Press.
- Ramdas, Admiral (Retd.) L. 2001. Myths and Realities of Nuclear Command and Control in India and Pakistan. *Disarmament Diplomacy*, 54, February.

- Rana, M. S.J.B. Rethinking South Asia. 2003. Available at <http://www.ifa.org.np/article/article5.php> [accessed 9 July 2009].
- Reddy, B.M. 2007. Justify Extradition Request: Pak. *The Hindu*, 3 January.
- Reddy, B.M. 2004. Natwar's Proposal on Nuclear Doctrine Innovative: Pakistan. *The Hindu*, 3 June.
- Reddy, C.R. 2003. Nuclear Weapons Versus Schools for Children: An Estimate of the Cost of Nuclear Weaponisation. In *Prisoners of the Nuclear Dream*. Edited by M.V. Ramanna and C.R. Reddy. New Delhi: Orient Longman, 360–408.
- Reddy, B.M. 2003. Over 4,000 Soldiers Killed in Kargil: Sharif. *The Hindu*, 17 August.
- Reddy, B.M. 2002. Musharraf Bans Laskhar, Jaish: Invites Vajpayee for Talks. *The Hindu*, 13 January.
- Reed, A.M. 1997. Regionalization in South Asia; They and Praxis. *Pacific Affairs*, 70(2), 235–51.
- Riedel, B. 2008. South Asia's Nuclear Decade. *Survival*, 50(2), 107–26.
- Riedel, B. 2002. *American Diplomacy and the 1999 Kargil Summit at Blair House*, CASI Policy Paper Series No. 5. Philadelphia: University of Pennsylvania.
- Robinson, T.W. 2003. The Sino–Soviet Border Conflict of 1969: New Evidence Three Decades Later. In *Chinese Warfighting: The PLA Experience since 1949*. Edited by Mark A. Ryan et al. Armonk, NY: M. E. Sharpe.
- Robinson, T.W. 1981. The Sino–Soviet Border Conflict. In *Diplomacy and Power: Soviet Armed Forces As A Political Instrument*. Edited by S. Kaplan. Washington, DC: Brookings Institution.
- Rosenberg, M. 2008. Pakistan Secures China's Help to Build 2 Nuclear Reactors. *The Wall Street Journal*, 20 October. Available at <http://online.wsj.com/article/SB122445373748048283.html>.
- Roy-Chaudhury, R. 2009. India's Nuclear Doctrine: A Critical Analysis. *Strategic Analysis*, 33(3), 404–414.
- Russett, B.M. 1967. *International Regions and the International System*. Chicago, ILL: Rand McNally.
- Russia Rejects Pakistani Version of Kargil Crisis. 1999. *The Hindu*, 2 July.
- Sabur, A.K.M. A. 2002. The Role of CBMs in Managing Indo–Pak Security Relationship: Reflections on the Crucial Challenges. In *Confidence*

- Building Measures and Security Cooperation in South Asia*. Edited by M.H. Kabir. Dhaka: Bangladesh International Institute of Security Studies.
- Sabur, A.K.M. A. ed. 1998. *Nuclearisation of South Asia: Challenges and Opportunities for Bangladesh*, biiss paper 17. Dhaka: Bangladesh Institute of International and Strategic Studies.
- Sagan, S.D. 2009. The Case for No First Use. *Survival* (London), 51(3), 163–82.
- Sagan, S.D. 2004. Nuclear Dangers in South Asia. *Forum on Physics & Society*, April. Available at [http://iis-db.stanford.edu/pubs/20573/sagan\\_nuc\\_sasia.pdf](http://iis-db.stanford.edu/pubs/20573/sagan_nuc_sasia.pdf).
- Sagan, S.D. 2003. For the Worse: Till Death Do Us Part. In *The Spread of Nuclear Weapons: A Debate Renewed*. Edited by Scott D. Sagan and Kenneth Waltz. New York: W.W. Norton, 90–108.
- Sagan, S.D. 2001. Perils of Proliferation in South Asia. *Asian Survey*, 41(6), 1064–86.
- Sagan, S.D. 2000. The Origins of Military Doctrine and Command and Control System. In *Planning the Unthinkable: How New Powers Will Use Nuclear, Biological, and Chemical Weapons*. Edited by P.R. Lavoy, S.D. Sagan and J.J. Wirtz. Ithaca, NY: Cornell University Press, 16–46.
- Sagan, S.D. 1996/7. Why Do States Build Nuclear Weapons?: Three Models in Search of a Bomb. *International Security*, 21(3), 54–86.
- Sagan, S.D. 1994. The Perils of Proliferation: Organization Theory, Deterrence Theory and the Spread of Nuclear Weapons. *International Security*, 18(4), 66–107.
- Sagan, S.D. and Waltz, K.N. 2003. *The Spread of Nuclear Weapons: A Debate Renewed*. New York and London: W.W. Norton.
- Sahni, V. 2007. The Stability–Instability Paradox: A Less than Perfect Explanation. In *The India–Pakistan Nuclear Relationship: Theories of Deterrence and International Relations*. Edited by E. Sridharan. New Delhi and Abingdon: Routledge.
- Sahni, V. 2004. Explaining India–Pakistan Crises: Beyond the Stability–Instability Paradox. In *Arms Race and Nuclear Developments in South Asia*. Edited by P.I. Cheema and I. Bokhari. Islamabad: Islamabad Policy Research Institute.

- Salik, N.A. 2006. Minimum Deterrence and India–Pakistan Nuclear Dialogue: Case Study on Pakistan. Landau Network-Centro Volta. March. Available at [http://www.centrovolta.it/landau/South%20Asia%20Security%20Program\\_file/Documenti/Case%20Studies/Salik%20-%20S.A.%20Case%20Study%202006.pdf](http://www.centrovolta.it/landau/South%20Asia%20Security%20Program_file/Documenti/Case%20Studies/Salik%20-%20S.A.%20Case%20Study%202006.pdf).
- Sanger, D.E. (with Judith Miller). 2002. Bush Meets India's Envoy: Fears of Pakistan War Deepen. *New York Times*, 11 January.
- Sanger, D.E. and Mazzetti, M. 2007. Israel Struck Syrian Nuclear Project, Analysts Say. *New York Times*, 14 October. Available at <http://www.nytimes.com>.
- Sasikumar, K. 2009. India's Debated Nuclear Policy (review essay). *India Review*, 8(3), 375–84.
- Sathasivam, K. 2005. *Uneasy Neighbours: India, Pakistan and US Foreign Policy*. Surrey: Ashgate.
- Sattar, A. 2007. *Pakistan's Foreign Policy 1947–2005: A Concise History*. Karachi: Oxford University Press.
- Sattar, A. 2000. Pakistan's Nuclear Strategy. In *The Nuclear Debate, Strategic Issues*. Islamabad: Institute of Strategic Studies, March.
- Sawhney, P. 2000. How Inevitable is an Asian Missile Race? *Jane's Intelligence Review*, January.
- Schaffer, T. 2009. *India and United States in the 21st Century: Reinventing Partnership*. Washington, DC: Centre for Strategic and International Studies.
- Schelling, T.C. and Halperin, M.H. 1961. *Strategy and Arms Control*. New York: The Twentieth Century Fund.
- Seeing A Watershed in Kargil. 2009. *The Hindu*, 25 July. Available at <http://www.hinduonnet.com>.
- Sehgal, I. 2008. Concept of National Security. *The News International* (Rawalpindi). 13 November.
- Seng, J. 1997. Less is More: Command and Control Advantages of Minor Nuclear States. *Security Studies*, 6(4), 50–92.
- Sethi, M. 2009. *Nuclear Strategy: India's March towards Credible Deterrence*. New Delhi: KW Publishers Pvt. Ltd.
- Shahandeh, B. 2000. Confidence Building Measure in the Persian Gulf. *Discourse; Iranian Quarterly*, 2(2). Available at

<http://www.netiran.com/Htdocs/Clippings/FPolitics/201209XXFP03.html>

Shaik, S. 1999. Clinton Asks Nawaz, Vajpayee to Defuse Volatile Situation. *The News*, 5 June.

Shambaugh, D. 2002. *Modernizing China's Military: Progress, Problems and Prospects*. Berkeley: University of California Press.

Shanker, T. and Bumiller, E. 2002. Bush Presses Pakistan on Kashmir and Orders Rumsfeld to Region. *The New York Times*, 31 May.

Sharif Warns of More Kargil-like Situations. 1999. *Times of India*, 21 June.

Shenkman, R. 2002. How Did India and Pakistan End Up on the Brink of Nuclear War? History News Network, 6 May. Available at <http://historynewsnetwork.org/articles/775.html> [accessed 10 August 2009].

Sherlock, S. 2001. *The Indian Railways Strike of 1974: A Study of Power and Organised Labour*. New Delhi: Rupa & Co.

Shourie, A. 1999. On Treasuring a Moment. The Arun Shourie Site, 25 February. Available at <http://shourie.bharatvani.org/articles/19990225.htm> [accessed 7 August 2009].

Siddiqa-Aga, A. 2002. War-gaming in a Nuclear Environment. *The Friday Times*, 26 July–1 August.

Sidhu, W.P.S. 2000. India's Nuclear Use Doctrine. In *Planning the Unthinkable: How New Powers Will Use Nuclear, Biological, and Chemical Weapons*. Edited by P.R. Lavoy, S.D. Sagan, and J.J. Wirtz. New York: Cornell University Press.

Sidhu, W.P.S. 2000. In the Shadow of Kargil: Keeping Peace in Nuclear South Asia. *International Peacekeeping*, 7(4), 189–206.

Sidhu, W.P.S. and Yuan, J. 2003. *China and India: Cooperation or Conflict*. New Delhi: India Research Press.

Singh, A. 2001. *A Ridge Too Far: War in the Kargil Heights 1999*. Patiala: Motibagh Palace.

Singh, B.K. 2005. India, China and the Politics of Regionalism. 30 December. Available at [http://www.ipcs.org/article\\_details.php?articleNo=1915](http://www.ipcs.org/article_details.php?articleNo=1915).

Singh, J. 2007. *In Service of Emergent India: A Call to Honor*. Bloomington: Indiana University Press.



- Singh, J. 1999. India's Nuclear Policy: The Year After. *Strategic Analysis*, 23(4), 509–30.
- Singh, J. 1999. *Kargil: Pakistan's Fourth War for Kashmir*. New Delhi: South Asia Books/IDSA.
- Singh, S. 1995. *Limited War: The Challenge of US Military Strategy*. New Delhi: Lancer Books.
- Sinha, A. 2009. Kalam, Chidambaram Rebut Claim that '98 Test was a Dud. *The Indian Express*, 28 August.
- Sinha, P.B. and Surbramanian, R.R. 1980. *Nuclear Pakistan: Atomic Threat to South Asia*. New Delhi: Vision Books.
- SIPRI Yearbook*. 2009. Stockholm: Stockholm International Peace Research Institute.
- Smith, D. 2007. *The Dragon and the Elephant: China, India and the New World Order*. London: Profile Books.
- Snyder, G.H. 1965. The Balance of Power and the Balance of Terror. In *The Balance of Power*. Edited by P. Seabury. San Francisco, CA: Chandler.
- Snyder, G.H. 1961. *Deterrence and Defense: Toward a Theory of National Security*. Princeton, NJ: Princeton University Press.
- Snyder, J. 1985. Perceptions of the Security Dilemma in 1914. In *Psychology and Deterrence*. Edited by R. Jarvis, R.N. Lebow and J.G. Stein. Baltimore, MD: John Hopkins University Press, 153–79.
- Sobhan, R. 2004. Roadmap for South Asian Cooperation. *South Asian Journal*, October–December.
- Sokolski, H. 2005. Backing the US–India Nuclear Deal and Nonproliferation: What's Required. Testimony before a (US) Senate Foreign Relations Committee, 3 November. Available at [http://www.carnegieendowment.org/static/npp/2005conference/presentations/Sokolski\\_India.pdf](http://www.carnegieendowment.org/static/npp/2005conference/presentations/Sokolski_India.pdf).
- Sokov, N. 2003. Russian Ministry of Defense's New Policy Paper: The Nuclear Angle. *CNS Reports*, Center for Nonproliferation Studies. Monterey, CA: Monterey Institute of International Studies. Available at <http://cns.miis.edu/pubs/> [accessed 26 October 2003].
- Sondhi, M.L. and Nanda, P. 1999. *Vajpayee's Foreign Policy: Daring the Irreversible*. New Delhi: Har-Anand Publications.
- Sood, Lt. General V.K. and Sawhney, P. 2003. *Operation Parakram: The War Unfinished*. New Delhi: Sage.

- South Asia: Confidence Building Measures (CBM) Timeline (n.d.). Stimson Center. Available at <http://www.stimson.org/southasia/?SN=SA20060207948>.
- Spencer, R. 2008. China's Military Ambition Fuels Asian Arms Race. 13 September. Available at [telegraph.co.uk](http://telegraph.co.uk).
- Sridharan, E. 2005. Improving India–Pakistan Relations: International Relations Theory, Nuclear Deterrence and Possibilities for Economic Cooperation. *Contemporary South Asia*, 14(3), 321–39.
- Statement by Nawaz Sharif, 28 May 1998. In *Disarmament Diplomacy*, 26 May.
- Status of World Nuclear Forces. Federation of American Scientists (FAS). Available at <http://www.fas.org/programs/ssp/nukes/nuclearweapons/nukestatus.html> [accessed 12 June 2010].
- Stern Warning to Pak. *The Hindu*, 2 October.
- Stockwin, H. 2002. N-Bombs to be Used as Last Resort. *The Times of India*, 20 January.
- Stoessinger, J.G. 1994. *Nations at Dawn: China, Russia and America*. New York: McGraw-Hill.
- Sublette, C. 2002. *Pakistan's Nuclear Weapons Programme Development*, Nuclear Weapons Archive, 2 January. Available at <http://nuclearweaponarchive.org>.
- Subrahmanyam, K. 1998. Indian Nuclear Policy, 1964–98: A Personal Recollection. In *Nuclear India*. Edited by Air-Commodore (Retd.) J. Singh. New Delhi: Knowledge World.
- Subrahmanyam, K. 1981. *Nuclear Myths and Realities: India's Dilemma*. New Delhi: ABC Publishing House.
- Subrahmaniyam, K. and Zuberi, M. 1985. *Problems of the Nuclear Age*. New Delhi: Centre for Research in Rural and Industrial Development.
- Subramanian, N. 2009. Pakistan Admits to Creating Militant Groups. *The Hindu*, 9 July. Available at <http://www.hinduonnet.com>.
- Subramanian, T.S. 2008. Strike power. *Frontline*, 25(6), 28 May.
- Subramanian, T.S. and Mallikarjun, Y. 2010. Agni II Launch a Complete Success. *The Hindu*, 7 February.
- Sunderji, Major General (Retd.) K., 1993. *Blind Men of Hindoostan: Indo–Pak Nuclear War*. New Delhi: UBS Publishers' Distributors.

- Suo Moto Statement by Prime Minister Shri Atal Bihari Vajpayee in Parliament on 27th May 1998. Available at <http://www.indianembassy.org/pic/pmparliament.htm>.
- Surgical Strikes are Feasible Militarily: Army Chief. 2009. *The Indian Express*, 8 February. Available at <http://www.expressindia.com/latest-news/Surgical-strikes-are-feasible-militarily-Army-Chief/420738/>.
- Swami, S. 2009. A War to End War: The Causes and Outcomes of the 2001–02 India–Pakistan Crisis. In *Nuclear Proliferation in South Asia: Crisis Behaviour and the Bomb*. Edited by Sumit Ganguly and S. Paul Kapur. London: Routledge.
- Talbott, S. 2004. *Engaging India: Diplomacy, Democracy, and the Bomb*. Washington, DC: Brookings Institution Press.
- Tavernise, S. and Sanger, D.E. 2009. Pakistan’s Leader Cedes Nuclear Office. *New York Times*, 28 November.
- Tellis, A.J. 2006. The Evolution of US–Indian Ties: Missile Defense in an Emerging Strategic Relationship. *International Security*, 30(4), 113–51.
- Tellis, A.J. 2003. Nuclear Stability in South Asia. In *Nuclear Stability in Southern Asia*. Edited by P.R. Chari, S. Gupta and A. Rajan. New Delhi: Manohar.
- Tellis, A.J. 2001. *India’s Emerging Nuclear Posture: Between Recessed Deterrent and Ready Arsenal*. Santa Monica, CA and Arlington, VA: The RAND Corporation.
- Tellis, A., Fair, C.C. and Medby, J.J. 2001. *Limited Conflict Under the Nuclear Umbrella: Indian and Pakistani Lessons from the Kargil Crisis*. Santa Monica: RAND.
- Text of Document Signed at Lahore. *Dawn*, 1999. 22 February. Available at <http://www.ipcs.org/documents/1999/1-jan-mar.htm>.
- Text of the Lahore Declaration. 1999. 21 February. Available at <http://www.ipcs.org/documents/1999/1-jan-mar.htm>.
- Thapar, V. India Defines Outer Limit of Weapons Programme. 2009. IBN Live, 11 August. Available at <http://ibnlive.in.com/news/india-defines-limit-of-weapons-programme/98999-3.html>.
- The Cabinet Committee on Security Reviews Operationalization of India’s Nuclear Doctrine. 2003. New Delhi, 4 January. Available at <http://pib.nic.in/archieve/lreleng/lyr2003/rjan2003/04012003/r040120033.html>.

- The Indo–Pak Trade Equation. 2003. Available at <http://www.rediff.com/money/2003/jun/19spec2.htm>.
- The Prime Minister of Pakistan, Z.A. Bhutto's Reply, 5 June 1974. *Pakistan Horizon*, XXVII(3) 3rd quarter 1974, 198–200.
- Thomas, R. 1993. *South Asian Security in the 1990s*, Adelphi Paper 278. London: International Institute for Strategic Studies.
- Thomas, R.G.C. 2001. India's Security Environment. In *Conflict and Peacemaking in South Asia*. Edited by P. Sahadevan. New Delhi: Lancer's Books.
- Thornhill, J. 2003. Moving Closer to the US: Strategy Capitalises on Post-September 11 Fall-Out. *Financial Times*, 23 September.
- Turner, S. 1998. The Specter of Nuclear Proliferation. *Security Dialogue*, 29(3), 293–301.
- Ura, K. 2001. Security in South Asia: A Bhutanese Perspective. *Security in South Asia*. Kathmandu: Institute of Foreign Affairs.
- United Nations General Assembly Official Records. 1968. 22nd Session, First Committee, 1580th Meeting, 13 May, 9.
- United Nations Resolution 1172. 1998. Adopted by the Security Council at its 3890th Meeting on 6 June. Available at <http://www.un.org/Docs/scres/1998/sres1172.htm>.
- US State Department. 1991. *The Pakistan Nuclear Program*. Released under the Freedom of Information Act to the National Security Archive, 17 January.
- US Offers FBI Help. 2001. *The Hindu*, 15 December.
- Varshney, A. 1991. India, Pakistan, and Kashmir: Antinomies of Nationalism. *Asian Survey*, 31(11), 997–1019.
- Vinayak, R. 1999. Nasty Surprise. *India Today International*, 31 May.
- Waltz, K.N. 1990. Nuclear Myths and Political Realities. *American Political Science Review*, 84(3), 731–45.
- Waltz, K.N. 1981. The Spread of Nuclear Weapons: More May Better. *Adelphi Paper*, No. 171. London: International Institute for Strategic Studies.
- Waltz, K.N. 1979. *Theory of International Politics*. Reading, MA: Addison-Wesley.
- We Can Cross the LoC: If Needed. 1999. *The Hindu*, 24 June.
- We Stand by the Govt.: Sonia. 2002. *The Hindu*, 18 May.

- We Will 'Unleash Storm' If Attacked: Vows Musharraf. 2002. *Daily Times*, 30 May.
- Weerakoon, D. 2001. Does SAFTA Have a Future? *Economic and Political Weekly*, 36(34), 3214–16.
- Wilkening, D. 2010. The Strategic Impact of Indian Ballistic Missile Defence. In *The Future of War and Peace in Asia*. Edited by N.S. Sisodia and S. Kalyanaraman. New Delhi: Magnum Books.
- Wirsing, R.G. 2003. *Kashmir in the Shadow of War: Regional Rivalries in a Nuclear Age*. New York: M.E. Sharpe.
- Wirsing, R. 1998. *India, Pakistan, and the Kashmir Dispute: On Regional Conflict and Its Resolution*. New York: St. Martin's Press.
- Wishnick, E. 2001. *Mending Fences: The Evolution of Moscow's China Policy from Brezhnev to Yeltsin*. London: University of Washington Press.
- Wohlstetter, A. 1959. The Delicate Balance of Terror. *Foreign Affairs*, 37(2), 211–34.
- World Concern at Nuclear Tests. 1998. BBC News online. Available at [http://news.bbc.co.uk/1/hi/events/asia\\_nuclear\\_crisis/archive/92844.stm](http://news.bbc.co.uk/1/hi/events/asia_nuclear_crisis/archive/92844.stm) [accessed 3 August 2009].
- Yu, V. 2004. New China Defense Policy Focuses Threat On Taiwan. *Space Daily*, 27 December. Available at <http://www.spacedaily.com/news/china-05a.html>.
- Zaidi, M. 2002. India on Warpath, Pak Steps Back; Pervez: We Must stop Infiltration. *Hindustan Times*, 23 May.
- Zardari, A.A. 2009. Sino–Pakistan Relations Higher than Himalayas. *China Daily*, 23 February. Available at [http://www.chinadaily.cn/opinion/2009-02/23/content\\_7501699.htm](http://www.chinadaily.cn/opinion/2009-02/23/content_7501699.htm).
- Zartman, W.I. 1967. Africa as a Subordinate State System in International Relations. *International Organization*, 21(3), 345–64.
- Zhara, F. 2000. Pakistan's Elusive Search for Nuclear Parity with India. In *India's Nuclear Security*. Edited by R.G.C. Thomas and A. Gupta. London: Lynne Rienner.
- Zhara, F. 1999. Pakistan's Road to a Minimum Nuclear Deterrent. *Arms Control Today*, 29(5).
- Zhengang, M. 2007. *China International Studies*. Beijing: China Institute of International Studies.

Zhenqiang, Major General (Retd.) P. 2009. China's Nuclear Strategy in a Changing World Strategic Situation. In *Unblocking the Road to Zero – Perspectives of Advanced Nuclear Nations*. Edited by B. Blechman. Nuclear Security Series. Washington, DC: Stimson Center, March.

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