



Should India Revise its Nuclear Doctrine?

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Summary

India's nuclear position is unique in two ways. First, in view of the restraint shown by India in demonstrating its capability in 1974 but going nuclear after nearly a quarter century in 1998, and secondly, as the only nuclear-armed state that remains committed to abolition of nuclear weapons as stated policy. India's nuclear doctrine is a work in progress. The last authoritative public pronouncement was in 2003, and that 250-word document is part doctrine and part nuclear policy. While some countries have chosen to adopt an opaque policy, as a democracy India chose to go public with its doctrine, both to explain the rationale for its decision and also to reassure its own public. Its doctrine is based on a 'credible minimum deterrent' which is still being developed along with other related capabilities and infrastructure. While the basic elements of the doctrine are sound and form a coherent whole, in order to convey credibility and assurance, the doctrine should be reviewed and updated periodically to take into account regional and global developments. Although no major revisions to the doctrine are necessary at present, the exercise of periodic reviews will subject the doctrine to a rigorous analysis so that its credibility is reaffirmed and the Indian public is reassured. Furthermore, it will strengthen the relevant institutions and ensure that India's nuclear policy reflects a broad political consensus.

Introduction

1. In recent months, there have been a number of articles and seminars involving the strategic community questioning India's nuclear doctrine, and suggesting that it should be revised as it lacked credibility. Some of the criticism was domestic, led by the hardliners, driven by

the news that Pakistan had developed a short range nuclear capable missile Hatf IX (Nasr), described as a tactical nuclear weapon and India should therefore review its no-first-use (NFU) posture. Meanwhile some foreign analysts questioned the notion of "credible minimum deterrent" when India faces two potential adversaries (Pakistan and China) with widely varying capabilities.

2. This questioning received a fillip when the Bharatiya Janata Party (BJP) came out with its election manifesto in April this year. Claiming that the strategic gains during the Atal Bihari Vajpayee government (1998–2004) had been "frittered away" by the Congress government in the following decade (without elaborating how), the manifesto promised a "two-pronged independent nuclear program, unencumbered by foreign pressure and influence." On the civilian side, it emphasized the importance of nuclear power in India's energy mix and committed to "invest in India's indigenous Thorium Technology Programme." On the military side, the manifesto committed to "study in detail India's nuclear doctrine and revise and update it, to make it relevant to challenges of current times, [and] maintain a credible minimum deterrent that is in tune with changing geostrategic realities."

3. The latter attracted commentary, both in India and abroad, as it was interpreted to indicate a shift from the NFU policy. Since then, this apprehension has been put to rest by Prime Minister Narendra Modi by reaffirming, on more than one occasion, that India has no intention of moving away from the NFU policy. His most recent affirmation of this was on 29 August 2014 to a group of Japanese journalists prior to his official visit to Japan.

4. Does this mean that there will not be any “revision”? Or, that none is needed? After all, the release of the Indian nuclear doctrine for public dissemination took place on 4 January 2003, more than a decade ago. Many changes have taken place in the regional and global security environments during this period. So a periodic review is certainly appropriate and, based on its analysis, India’s existing nuclear doctrine may, or may not, require revisions.

5. This brief is divided into three sections. The first section examines the historical and political moorings of India’s nuclear doctrine. Even though India became a nuclear-armed state only in 1998,¹ it had maintained a nuclear option since 1974 and consequently developed a nuclear policy narrative over several decades, elements of which form an integral part of its nuclear doctrine. Discarding these elements would be difficult as these lend both ideological coherence to the Indian doctrine and also provide a degree of reassuring continuity. The second section looks at nuclear doctrines of some of the other countries, not for the purpose of undertaking a comparative analysis but more to observe moments when doctrinal shifts have occurred and how these have been communicated, domestically and to the outside world. Against this framework, the third section takes up the arguments put forward in favour of a revision of the Indian doctrine and analyzes whether and where doctrinal revisions are feasible.

Analyzing the Indian Nuclear Doctrine

6. A “doctrine” is akin to a “grand strategy.” It provides a framework for developing strategies that can help safeguard core interests identified in the doctrine. India has never formally presented a national security doctrine (nor a nuclear posture review). However, there are a few common strands of thought that have remained fairly consistent. These are drawn partly from the legacy of the British Raj and partly from the ideological moorings of the independence struggle that together represent a unique mix of *realpolitik* and *‘moralpolitik’*. Safeguarding its political and territorial integrity has been a core interest for India. Maintaining its diversity and plurality while managing both internal and external threats has remained a key objective.

7. A second is the need to create an environment in which India can realize its economic potential in a manner that contributes to greater equity within a democratic polity. For this, while a network of diplomatic engagements is essential, a degree of strategic autonomy is also needed. In other words, independent India’s first leaders believed that joining alliances would constrain the country’s newly won freedom of action, and alignment with either bloc in the Cold War was therefore considered neither feasible nor desirable. While India’s size and its civilizational past created a sense of conviction that it was India’s destiny to emerge as a great power, the path was not through a military-led restoration of an “*akhand Bharat*” (great Indian empire). Rather, it was through greater development and responsible engagement, especially in the neighbourhood and along the arc ranging from the Suez to the Straits of Malacca. Given the colonial past and the non-violent struggle for independence, India inherited a tradition of “restraint” with regard to employment of military force, though it sought to have the capability to “compel” or “coerce” and only use it if core interests were threatened and all else had failed. So while India has not formally articulated a national security doctrine, the preceding elements provide some perspective on the issue.

8. India’s nuclear doctrine contained in the press statement of 4 January 2003 consists of less than 250 words. It is neither a White Paper nor a Nuclear Posture Review and therefore looking for elements found in such documents would be just a speculative exercise. A better appreciation might come from the perspective of the evolution of India’s nuclear policy and the elements of national experience, thought and inheritances that shape India’s security framework.

9. A good starting point is that India is a reluctant nuclear-armed state which places it in a unique position. India demonstrated its capability in 1974 by conducting a “peaceful nuclear explosion” (PNE) but maintained nearly a quarter century of restraint before events, both global and closer to home, obliged India to again test in 1998 and declare itself a nuclear weapons possessor state. The restraint grew out of India’s world-view coupled with a strong conviction that a nuclear-weapon-free-world was a desirable objective because it enhanced both India’s security and global security.

¹ CNND uses “nuclear-armed state” as a factual description of any country that possesses nuclear weapons.

10. India continued to take initiatives in the field of nuclear disarmament, beginning with calls for cessation of nuclear testing in 1950s and following up with more comprehensive approaches in the 1960s. The outcomes – a Partial Test Ban Treaty (1963) banning atmospheric testing that merely drove nuclear testing underground and the Nuclear Non-Proliferation Treaty (NPT, 1968) which created its own nuclear apartheid – fell far short of what had been envisaged and India chose to stay out of the NPT. Attempts to obtain security assurances from the USA, UK and then-USSR to address concerns arising out of China's nuclear capability proved fruitless. During the Bangladesh crisis of 1971, the entry of the nuclear-armed *USS Enterprise* aircraft carrier group into the Bay of Bengal conveyed an unambiguous message to the Indian leadership, leading to the 1974 nuclear test. Yet, after demonstrating its capability, India refrained from weaponizing the device and continued to take more disarmament initiatives, including:

- The call for a “nuclear freeze”;
- A proposal for negotiating a convention prohibiting the use or threat of use of nuclear weapons;
- The Five-Continent, Six-Country Disarmament Initiative;
- Prime Minister Rajiv Gandhi's Action Plan presented at the Third Special Session of the UN General Assembly devoted to Disarmament in 1988, calling for a phased program for the elimination of nuclear weapons and the creation of a nuclear-weapon-free world;
- Support for the 1996 reference to the International Court of Justice (ICJ) of the legality of use of nuclear weapons in terms of moral and humanitarian laws.

11. By the end of the 1980s, the world had changed dramatically. The Cold War was over but the optimism that it would enhance multi-lateralism was soon dispelled. The indefinite and unconditional extension of the NPT in 1995 perpetuated an order that India had found difficult to accept. Furthermore, in its own neighbourhood, Pakistan had developed a nuclear capability with overt Chinese collaboration and cooperation in the missile field was also proceeding apace. Pakistan had used irregular forces both in 1947–48 and in 1965 but having successfully experimented now with

jihad against the USSR in Afghanistan, was able to come up with a new strategy. On the assumption that any robust Indian military reaction could be deterred through nuclear blackmail and an apprehension about internationalization of the Kashmir issue, extremist elements were deployed to create an insurgency in Kashmir which could be passed off as a self-determination movement.

12. Like the NPT in the 1960s, the Comprehensive Nuclear Test Ban Treaty (CTBT) negotiations in 1995–96 had taken a turn which made the CTBT more an instrument of non-proliferation than a step towards nuclear disarmament. India decided to stand aside from these negotiations because subscribing to such a CTBT would shrink India's “nuclear option” into a 1974 device, while Pakistan's capabilities in terms of weapon design and missiles were expanding significantly with Chinese help.

13. Much of this has been detailed in a paper entitled “Evolution of India's Nuclear Policy” which was tabled by Prime Minister Vajpayee in parliament shortly after the 1998 tests.² In fact, it was the first comprehensive document on this subject and also contained elements of what would later become the “nuclear doctrine.” It categorically stated India's stand that “nuclear weapons were not weapons of war” and that “a nuclear-weapon-free-world would enhance not only India's security but also the security of all nations.” Vajpayee declared that India's nuclear arsenal was for self defence and “to ensure that India was not subjected to nuclear threats or coercion.” He went on to declare “a voluntary moratorium” on further testing and committed India to participation in the fissile material cut-off treaty (FMCT) negotiations and the maintenance of “stringent export controls to ensure that there is no leakage of our indigenously developed know how and technologies.” All these elements reflected a degree of continuity with earlier pronouncements and are developed in the draft report from the National Security Advisory Board on Indian Nuclear Doctrine released on 17 August 1999,³ and then in the 2003 document which

² Atal Bihari Vajpayee, “Evolution of India's Nuclear Policy,” 27 May 1998, <http://pib.nic.in/focus/foyr98/fo0598/Foc2705982.html>.

³ India's Draft Nuclear Doctrine, <http://mea.gov.in/in-focus-articles.htm?18916/Draft+Report+of+National+Security+Advisory+Board+on+Indian+Nuclear+Doctrine>.

emerged as a decision of the Cabinet Committee on Security, chaired by the prime minister.⁴

14. Briefly, the elements of India's nuclear doctrine as spelt out in 2003 are:

- i. Building and maintaining a credible minimum deterrent;
- ii. A posture of no-first-use;
- iii. Nuclear retaliatory use in response to a nuclear attack on Indian territory, or on Indian forces anywhere;
- iv. Nuclear retaliation to be massive and inflict unacceptable damage;
- v. Non-use of nuclear weapons against non-nuclear-weapon states;
- vi. Option of nuclear retaliation in response to chemical or biological attack on India, or on Indian forces anywhere;
- vii. Continuation of strict export controls on nuclear and missile related materials and technologies;
- viii. Participation in the FMCT negotiations;
- ix. Continued observance of the moratorium on nuclear tests;
- x. Continued commitment to the goal of a nuclear-weapon-free-world, through global, verifiable and non-discriminatory nuclear disarmament.

15. While many of these elements are in keeping with PM Vajpayee's paper, some reflect new thinking. The defensive role of nuclear weapons and the fact that these are not war fighting weapons, the conviction that a nuclear-weapon-free world is a desirable objective not just in terms of a moral goal but from a national security point of view, characteristic of restraint implying no-first-use, testing moratorium, engaging in FMCT negotiations and implementing stringent export controls on sensitive technologies are elements which were spelt out in the paper.

16. The 1999 Draft Nuclear Doctrine also contains these elements but places them in a broader political context. It links India's doctrine to the "right to self defence" provided under the UN Charter. It brings in the idea of "credible, minimum deterrent" and defines it as sufficient, survivable and operationally pre-

pared nuclear forces, a robust command-and-control system, effective intelligence and early warning capabilities, the will to employ nuclear weapons, and effective conventional military capabilities. All these would be maintained in a manner that raises the threshold both for a conventional as well as for a nuclear conflict.

17. The 1999 draft provided for "punitive retaliation with nuclear weapons to inflict damage unacceptable to the aggressor" only in case of a nuclear attack "on India and its forces." These elements were modified in the 2003 document – nuclear retaliation would be launched in response to a nuclear attack on "Indian territory or on Indian forces **anywhere**"; retaliation would be "**massive** and designed to inflict unacceptable damage"; and the trigger for nuclear retaliation was broadened to be able to respond to "a major attack against India, or Indian forces anywhere, **by biological and chemical weapons.**" These modifications, to which we will return a little later in this brief, led to some speculative interpretation which the government chose not to address.

18. In addition, the 1999 draft stated that Indian nuclear forces will need to be "effective, enduring, diverse, flexible, and responsive" and will be "based on a triad of aircraft, mobile land-based missiles and sea-based assets." It promised assured capability to shift from peacetime deployment to fully employable forces "in the shortest possible time." The 1999 draft talked of civilian control which was elaborated in 2003, as consisting of a Nuclear Command Authority (NCA) with a Political Council (chaired by the Prime Minister and including members of the Cabinet Committee on Security) and an Executive Council (chaired by the National Security Adviser and including the three Service chiefs and the Strategic Forces Commander).

19. The Strategic Forces Commander provides the inputs for decision making and also executes the Political Council's directives. A Strategic Forces Command manages and administers all strategic forces. The Strategy Programme Staff is a unit in the National Security Council (NSC) Secretariat that collates intelligence regarding potential adversaries and works on a 10-year perspective plan for India's nuclear deterrent. Matters relating to the safety and security of nuclear assets and delivery vehicles, during storage and transfer, are handled by the Strategic Armament Safety Authority, under the NCA.

⁴ Prime Minister's Office, Press Release, 4 January 2003, "Cabinet Committee on Security Reviews Progress in Operationalizing India's Nuclear Doctrine," <http://pib.nic.in/archieve/lreng/lyr2003/rjan2003/04012003/r040120033.html>.

20. Thus there is both a degree of continuity in the three documents and together they also articulate a uniquely Indian world-view. Reflecting the long held conviction that nuclear weapons are political in nature and not weapons of war fighting, these documents seek to explain India's quest for security in a nuclearized environment, the unique restraint and finally its emergence as a reluctant nuclear-armed state. While the documents outline broad principles for the development, deployment and employment of India's nuclear forces, they also seek to establish India's role as a responsible nuclear-armed state that is willing to pursue confidence-building measures (CBMs) and nuclear risk reduction measures in its region, can be a responsible member of multilateral non-proliferation export control regimes, and is prepared to support measures towards a nuclear-weapon-free-world. That is why even the 2003 document, the shortest of the three, includes elements that do not find reference in other declared doctrines and, as a corollary, omits issues which are included in the calculus of those states that attribute a different role to their nuclear weapons.

An Overview of Nuclear Doctrines

21. Any country's nuclear doctrine has two principal objectives. First, it provides guidance to its own military forces together with reassurance to its citizens and allies. Second, it sends a clear or coded message to potential adversaries. Because nuclear weapons are unlike conventional weapons, there is also a third objective – preventing a nuclear war – but this is implemented differently by different countries. A country with a no-first-use policy would interpret this as deterring an adversary from resorting to a first use of nuclear weapons, whereas another country which adopts a first-use could justify deterrence being served also by the threat of pre-emption.

The United States

22. Most of the publicly available literature on this subject relates to the evolution of the US nuclear doctrine.⁵ The original US concept was "massive retaliation" which lasted through the 1950s. Meanwhile, as US intelligence assessments about the size of the Soviet arsenal grew, the US also added to its own arsenal. In 1948,

the US Atomic Energy Commission had approximately 50 weapons and needed a team of 40 persons which would take two days to assemble it; by 1950 the number was 250 and by 1960, more than 15,000! Therefore "massive retaliation" or "giving it all you have got" made no sense any longer. President Dwight D. Eisenhower's Science Advisor George Kistiakowsky raised the issue of redundancies and lack of control and coordination. In 1959, centralized target planning authority was finally introduced with the Strategic Air Command which then gave birth to the Single Integrated Operational Plan (SIOP). When President John F. Kennedy was briefed about SIOP-62, he found that he would be obliged to authorize the launch of more than 3,200 weapons to meet the defined military objectives, which he considered to be a paralyzing decision. Asked to refine the options, Defense Secretary Robert McNamara came up with a set of escalatory steps on the nuclear ladder, each step with its own targeting lists, described as "flexible response."

23. By 1980, the US target lists covering the adversary's nuclear and conventional forces and military, industrial and economic centres had grown to 40,000, with correspondingly bloated arsenals, added on account of Defense Secretary James R. Schlesinger's "selective retaliation." Meanwhile, flexible response had given way to counterforce targeting and then the Countervailing Doctrine after Assured Destruction was quickly interpreted as MAD (Mutually Assured Destruction). During President Ronald Reagan's years, countervailing was replaced by "prevailance" which meant ensuring US victory rather than merely denying the opponent's objectives. Naturally, each change in the doctrine was designed to enhance its "credibility" and the SIOPs were updated accordingly.

24. The end of the Cold War led to calls for a rethink and since 1994, the US has produced periodic Nuclear Posture Reviews (NPR) mandated by the Congress and SIOPs have been replaced by CONPLAN (Contingency Plan) 8044. After President Barack Obama's famous Prague speech in 2009, the 2010 NPR indicated that the US is seeking to reduce the role of nuclear weapons and defined their role "to deter nuclear attack on the US, its allies and partners; in extreme circumstances to defend the vital interests of the US, its allies and partners." Consequently, first-use has been retained and in order to provide a nuclear umbrella to both

⁵ Scott D. Sagan, *Moving Targets: Nuclear Strategy and National Security* (Princeton: Princeton University Press, 1989).

Japan and South Korea, even “sole purpose” not adopted (nuclear retaliation can be contemplated against conventional attack in “extreme circumstances”). Deterrence by denial also implies a greater future role for “missile defence.”

*France and the United Kingdom*⁶

25. France has sought to project its doctrine as “independent,” especially since 1967 when it quit NATO’s integrated structure in protest at the US adoption of “flexible response” which the French interpreted as a dilution of the US nuclear security guarantee. France adopted the notion of “final warning” – a single limited strike on military targets as a message to an adversary who may have underestimated French resolve. French interpretation of the right of self defence under Article 51 of the UN Charter is absolute and not constrained by “proportionate response” and it also considers all nuclear weapons to be “strategic.” Rather than a “counter-force” strategy that would destroy the enemy’s nuclear assets, its retaliation is designed to inflict “unacceptable damage” by targeting populations. Two significant speeches by President Jacques Chirac (on 8 June 2001 and 19 January 2006) framed the evolution to deal with threats emanating from state sponsors of terrorism and the possibility of terrorists using weapons of mass destruction (WMD). This also envisaged the use of an electromagnetic pulse to disable an adversary’s electronic networks.

26. The UK doctrine is dovetailed closely with the US because it is unlikely that there can be a threat to the UK where it has to exercise its nuclear option on its own. Yet, given its limited size, rather than “counter-force,” Britain too emphasizes retaliation causing unacceptable damage. The Defence White Paper of 2006 justified the continuation of the limited submarine-based deterrent also to deliver “an overwhelming and devastating response” to a regional WMD threat and decided to undertake the replacement of the four ageing Vanguard class ballistic missile submarines (SSBNs) that carry the Trident (D-5) missiles with a new platform which will become operational by 2024.

*Russia*⁷

27. Russia’s doctrine has evolved during the past decade and today reflects considerable similarity to the US doctrine. During the Cold War, the USSR may have been less public with its doctrine but its arsenal certainly kept in step with the expansion of the US stockpile. In fact, the USSR declared a no-first-use doctrine during the Cold War years. However, neither the nature of its arsenal nor its deployment pattern was consistent with the declaratory posture and in the post-Cold War period, no-first-use was quietly dropped. Today, Russia envisages using its nuclear weapons in response to the use of nuclear weapons and other WMD against Russia and its allies; or in response to conventional aggression where the existence of the Russian state is threatened. In other words, Russia envisages first use, is not bound to “sole purpose” and provides a nuclear umbrella to its allies through extended deterrence, a position very similar to that followed by the US.

*China*⁸

28. China’s nuclear doctrine has been different from the outset reflecting its own world-view. Both Chairman Mao Zedong and his successor Deng Xiaoping considered nuclear weapons as tools for deterring nuclear aggression and coercion and not as weapons of war. Deterrence could therefore be ensured through assured retaliation which required a small arsenal. Accordingly, China adopted a no-first-use policy. Initially, China’s arsenal was designed to resist nuclear blackmail by the US but soon after, the USSR was also defined as an adversary. Mao described nuclear weapons as “paper tigers” which was consistent with the importance he attached to “people’s war.” This different view of nuclear weapons also contributed to China taking a more relaxed view about nuclear proliferation, especially during 1970s and 1980s when it contributed actively to Pakistan’s nuclear weapon development program and shared sensitive technologies with other countries, including North Korea and Iran.

29. For over three decades, China maintained a capability that according to Western analysts was both vulnerable and lacked an operational doctrine. China’s NFU policy only gained credi-

⁶ Bruno Tertrais, *A Comparison Between US, UK and French Nuclear Policies and Doctrines*, http://www.sciencespo.fr/cepi/sites/sciencespo.fr/cepi/files/art_bt.pdf.

⁷ *NTI Country Profiles*, <http://www.nti.org/country-profiles/>.

⁸ *China’s Defence White Papers*, <http://eng.mod.gov.cn/Database/WhitePapers/>.

bility in the late 1990s when it developed the capability of absorbing a first strike and retaining a survivable arsenal, delivery systems and command, control and communication systems to ensure devastating retaliation. China remained unperturbed by the foreign questioning of its doctrine and maintained that lack of transparency compensated for its weakness and added to the credibility of its deterrent.

30. After the mid-1990s, China's posture started evolving. Beginning in 1996, China has brought out eight Defence White Papers. Though the arsenal has grown modestly in size, the significant shift has been in terms of its modernization with development of long-range intercontinental ballistic missile (ICBM) and SSBN capabilities, developing MIRV (multiple independently targetable re-entry vehicle) and MaRV (manoeuvrable re-entry vehicle) technologies, deploying rail-mobile ICBMs, moving from liquid fuelled to solid fuelled launchers, and the development of short range or tactical nuclear weapons. The 2006 White Paper contained a more complete explanation of Chinese nuclear posture while retaining the basic elements of NFU and "assured retaliation."

31. However, its growing capabilities have also generated questions about whether China is now shifting from "minimum deterrence" to "limited deterrence" (or moderate deterrence). For the first time, the 2013 White Paper omitted a reference to NFU (though it was reiterated subsequently when its absence was questioned). The omission was not accidental and at the very least, reflects an internal debate in China about the utility of retaining such a constraining posture and whether it should be replaced by a more permissive policy that offers greater flexibility in both deployment and employment. Furthermore, there is ambiguity about whether no-first-use applies to conflicts associated with disputed territories or "local wars," together with reports that the People's Liberation Army's targeting is not limited to counter-value targets as in the past but also covers offensive capabilities of an adversary, designed to bring an end to the conflict.⁹

32. Post-1990, China has also begun tightening its non-proliferation policies and export controls, except when it comes to Pakistan whose nuclear capability it continues to support by

liberally using the "grand-fathering" approach. Behind the possible Chinese shift are two drivers – first, that domestic technological and financial constraints on designing new weapons and delivery systems are no longer as restrictive, and secondly, US development of Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C⁴ISR in US military jargon) and missile defence capabilities, together with growing ability to undertake long-range precision strikes with conventional warheads.

*Pakistan*¹⁰

33. Pakistan has not made its nuclear doctrine public, claiming that ambiguity and the resulting uncertainty is helpful. However, certain elements can be deduced from statements and writings of military leaders and senior officials. The key is that Pakistan's doctrine is India-centric. It has defined its deterrent as minimum credible deterrent (and sometimes as minimum defensive deterrent) though its actual numbers will be a function of India's capability. It is intended to deter nuclear use by India and also act as an equalizer against India's conventional superiority. Consequently, Pakistan rejects NFU. Other elements include observing a moratorium on testing (unless India tests), participation in FMCT negotiations (which has actually meant blocking them by insisting on introducing "existing stockpiles"), and support to international arms control measures that are non-discriminatory.

34. In its search for full-spectrum (that is, conventional as well as nuclear) deterrence, Pakistan has adopted much of NATO's terminology of the early Cold War which relied on tactical nuclear weapons. But this ignores the political compulsion of "extended deterrence" and also that by the end of the 1980s, based on new findings, tactical nuclear weapons were found to be militarily useless (remember the phrase – the shorter the range, the deader the Germans). Since April 2011, Pakistan has conducted a number of tests of its 60 km range missile (Hatf IX/Nasr). In 2012, Pakistan also established a Naval Strategic Force Command and is expected to deploy nuclear missiles on surface vessels. Both these developments pose questions with regard to Pakistan's claims about maintaining centralized command-and-control

⁹ M. Taylor Fravel and Evan S. Medeiros, *China's Search for Assured Retaliation*, http://www.mitpressjournals.org/doi/pdf/10.1162/ISEC_a_00016.

¹⁰ Brig Gen (Retd) Naeem Salik, *The Evolution of Pakistan's Nuclear Doctrine*, http://www.nps.edu/Academics/Centers/CCC/Research/NuclearLearning/6%20Nuclear%20Learning_Salik.pdf

and separation of warheads from delivery systems. Considering that Pakistan is host to a number of groups of non-state actors with violent agendas, this has also raised concerns about the safety and security of Pakistan's nuclear assets.

Israel and North Korea¹¹

35. Israel has never acknowledged possessing nuclear weapons, making it the worst kept secret in nuclear history, preferring to maintain opacity for political reasons, both domestic and external. Its public position since 1965 has been that it shall not be the first to introduce nuclear weapons in the Middle East. The most explicit accounts about Israel's nuclear capabilities came from Mordechai Vanunu's disclosures in the 1980s and it would fair to assume that Israel's nuclear capabilities would have grown since, to include a triad with missile capability including ICBMs. However, there is a disconnect between Israel's capability and its declaratory posture. But since the latter serves its security objectives, this merely highlights the political character of nuclear weapons.

36. North Korea is a quintessential outlier, having announced its decision to quit the NPT in 1993, put the decision in suspension in return for two US light water reactors and when the deal soured, finally quitting the NPT in 2003. With Chinese help, it had developed a fairly robust missile capability and expanded its access to enrichment and reprocessing technologies by trading know-how with the Pakistani metallurgist A. Q. Khan's 'nuclear Wal-Mart'. After having conducted three nuclear tests in 2006, 2009 and 2013, it is estimated to possess between six to eight devices but not yet the capability to make a warhead compact enough to fit onto its missiles. North Korea's nuclear policy is driven by regime-related existential concerns and together with Chinese influence, the extent of which is sometimes debated, increases the opacity of North Korea's doctrine.

Calls for Revising the Indian Doctrine

37. As the preceding section makes clear, nuclear doctrines reflect a world-view invariably shaped by a country's historical experiences and the vision of its leaders (political, military and scientific), its threat perceptions and the role it assigns to nuclear weapons, political will

and technical capabilities. Doctrines also evolve taking into account growing technical capabilities and geopolitical changes. The credibility of the doctrine comes from its coherence and consistency between declared objectives and actual behaviour. Generally, democratic countries are more prone to public pronouncements regarding their security and nuclear doctrines because, being open societies they are held to higher standards of accountability by their citizens. Policy changes are intended to impart greater credibility to the nuclear doctrine in the eyes of the potential adversaries and also reassurance to its own citizens. (Israel is an exception in that its publicly articulated stand has remained opaque and consistent for nearly fifty years, despite geopolitical changes and a significant expansion in its capability, yet its doctrine is perceived as being "credible.")

38. A number of arguments have been put forward to justify why India should review its nuclear doctrine. Broadly, these fall into three categories. The first is the criticism that India's doctrine is not credible because its capabilities are limited and its armed forces are not in the loop. The second set of arguments question the credibility of the no-first-use policy by pointing to the domestic cost of absorbing an adversary's first strike, questioning India's ability to deliver massive retaliation, doubting whether use of a tactical nuclear weapon would justify massive retaliation and suggesting that India may be better served by replacing NFU by either first-use or ambiguity. The third category of arguments is more fundamental and suggests that Indian security has been adversely impacted by going overtly nuclear because Pakistan is also a nuclear-armed state. Thus India's nuclear weapons were unable to deter Pakistan from launching the Kargil incursions in 1999 but did deter India from a more robust military response. Each of these categories of questions merits proper examination.

The Credibility of India's Nuclear Doctrine

39. Indian doctrine is a brief document and only spells out certain basic principles which reflect a uniquely Indian world-view. Furthermore, it also dwells on issues (nuclear testing, export controls etc.) which do not fall within the ambit of a "nuclear doctrine" and therefore a comparison with NPRs or White Papers brought out by other countries serves little purpose. Third, the doctrine is both declaratory and aspirational, implying that nuclear capabil-

¹¹ *NTI Country Profiles*, <http://www.nti.org/country-profiles/>.

ities are still being built up. Long-range missile capability and the submarine leg of the triad are being developed. Similarly, ensuring a command-and-control infrastructure that can withstand a first strike, building a deterrent that is both sufficient and survivable to ensure retaliation, and improving C⁴ISR capabilities, are attributes that can only be improved over time. This is why the deterrent is defined as a “credible minimum deterrent” but without specifying a numerical limit. Together with “sole purpose” and NFU, this indicates that India does not intend to engage in a nuclear arms race with any country. It is also consistent with centralized command-and-control and ensuring safety and security as the warheads and delivery systems can be stored separately.

40. Since India’s leaders have considered nuclear weapons as political weapons, the elements of the nuclear doctrine have been authored by the political leadership. After 1998, the military services have been involved with nuclear planning but command-and-control rests firmly with the civilian leadership. The relatively late entry of the services into nuclear decision making only underlines the fact that Indian political leadership sees nuclear weapons very differently from conventional weapons. Moreover, since the deterrent is a work in progress, a greater role for the military or a shift to a first-use policy is not going to address the technical shortcomings. The setting up of the Strategic Forces Command and the creation of the Strategy Programme Staff in the NSC Secretariat provide for greater engagement of the military in strategic and target planning and operational execution, and also for better civil-military coordination.

No-First-Use

41. Closely linked is the logic of the no-first-use policy because nuclear weapons are not perceived by the Indian political leadership as weapons of war fighting. Therefore the attempt has been to ensure successful deterrence (hence the efforts to build a triad) that can guarantee unacceptable retaliatory (second strike) damage. Any other policy of first-use or its variant would run the risk of drawing India into a nuclear arms race. Since it would envisage use other than “strategic,” it would also lead to dilution of the centralized command-and-control system by delegation of launch authority and the need to maintain the arsenal at a higher level of alert status than is currently the position. Ambiguity or opacity is easier to

adopt in China or Pakistan but in a democratic society, the government has to create a broad-based national consensus which requires formulating, sharing and publicly articulating policy rationales.

42. Any change of doctrine is not merely the change of a few words here and there. Rather, in order for it to be credible, it must be coherent with other elements of the doctrine, namely posture, size and composition of the arsenal, storage and employment protocols and command-and-control procedures. There is also the issue of consistency with the historical world-view – the notion of India being a “responsible” state that observes “restraint” in the exercise of force and remains committed to the idea of a nuclear-weapon-free world. The current doctrine displays both coherence and consistency though admittedly, absorbing a first strike would be a high price, particularly when elements of the deterrent are still being put in place. However, any doctrinal change will have to be carefully managed and implemented so that it enhances India’s security and sustains stability.

Implications of Doctrinal Asymmetry

43. The criticism that nuclear weapons did not prevent the Kargil war is invalid because the Indian doctrine does not claim that it was or is intended to deter a Kargil-like conflict. India’s deterrent is solely intended to deter nuclear aggression and nuclear blackmail. In fact, the latter was a key reason that India was obliged to test in 1998 and declare itself a nuclear weapons possessor state. Pakistan had undertaken a “cold test” and assembled its first weapon (based on a validated Chinese design) by 1987, leading to an increased sense of vulnerability in India. The only way out for India to end the nuclear blackmail under whose shadow Pakistan was pursuing its covert war was to go nuclear overtly. That Pakistan could follow within two weeks with six explosive tests demonstrates that it had been assembling weapons for some time. The Kargil war exposed the Pakistani strategy and subjected Pakistan to widespread criticism that its army had engaged in reckless and irresponsible behaviour.

44. Pakistan has chosen to maintain an opaque doctrine because it would find it difficult to get support for a nuclear war fighting policy and nothing else would explain its recourse to tactical nuclear weapons. As the only country

whose nuclear program and weapons are controlled by the army and not by the civilian leadership, the role of its nuclear weapons has been defined by the army which retains its obsession with changing the status quo with India using covert means by seeking space below the nuclear threshold. Naturally, this creates a doctrinal asymmetry, but the answer to that is not for India to give up its NFU but to strengthen its intelligence and conventional capabilities.

45. Unlike the India–Pakistan equation, the India–China equation is perceived as more stable, even though the Chinese arsenal is far larger and more sophisticated than the Indian deterrent and there have also been boundary incursions and air space violations in recent months. The reason is that neither country is seeking to change the status quo by exploring space below the nuclear threshold. The primary driver of India’s nuclear doctrine remains China. However, the nuclear dyad with Pakistan attracts greater international attention as a ‘potential nuclear flash-point’ but the underlying reason is the doctrinal asymmetry.

Changes from 1999 to 2003

46. There have been some changes between the 1999 and the 2003 documents which have attracted comment and attention. One change has been replacing the 1999 formulation of “a nuclear attack on India and its forces” (1999) by “nuclear attack on Indian territory or on Indian forces anywhere” in the 2003 document, as attracting a retaliatory nuclear strike. The term “punitive retaliation” used in the 1999 draft doctrine has been replaced by “massive retaliation” in 2003 document. However, both elaborate it by using the term “to inflict unacceptable damage” on the aggressor. The question as to whether the use of a tactical nuclear weapon if used on Pakistani soil to halt an advancing Indian armour column should merit a “massive” response and, if not, whether such a stand is credible reflects the nuclear war fighting approach. India considers any use of nuclear weapons as “strategic” and rejects the attempt to somehow equate a low yield nuclear weapon with just another more destructive conventional weapon.

47. That is why the Indian doctrine declares that the objective of nuclear weapons is not to deter war (not full-spectrum deterrence) but only to deter the use or threat of use of nuclear weapons. Attributing a larger role would only serve to lower the nuclear threshold and gen-

erate concerns about the “nuclear flashpoint hypothesis.” Nuclear terminology has traditionally used the term “massive retaliation” but even this terminological change by Indian authorities, from “punitive” to “massive,” without corresponding changes in arsenals and postures, has only contributed to speculative interpretation. This is why any change in the doctrine has to be carefully managed so that coherence and consistency are not lost. Creating uncertainty in the mind of an adversary is a legitimate objective but it must be done without diminishing domestic trust and confidence.

48. Another change in the 2003 document is the qualification in the earlier no-first-use that introduces the option for nuclear retaliation against an attack using chemical or biological weapons. The reason for this has never been spelt out. However, there have been suspicions that Pakistan may have been dabbling with building up a clandestine biological weapon capability. But since attribution of such a use will be difficult, it is not clear whether the threat of nuclear retaliation actually acts as a deterrent. Therefore, this qualifier has not added much to ‘credibility’ but dropping it today should be considered as part of an overall review package.

Different Policy Approaches for Different Nuclear Ages

49. It is universally accepted that nuclear weapons are qualitatively different from conventional weapons but from this point on, differences begin to emerge. One school of thought maintains that the sole purpose of nuclear weapons is to deter an opponent from using nuclear weapons. In other words, nuclear weapons should only address the threat of nuclear aggression. A no-first-use policy is therefore entirely consistent with such an understanding; it is both stabilizing and permits a posture that enhances the safety and security of the nuclear stockpile. Differences begin to emerge when nuclear deterrence is defined to address a wider range of security threats (such as full-spectrum deterrence). Such an approach invariably leads to first-use and escalatory steps, which in turn lead to planning to enable domination at each stage, and consequently, nuclear arms racing.

50. In a nuclear dyad, these different approaches will invariably lead to a mismatch of doctrines or doctrinal asymmetry. The Cold War which broadly coincided with the first

nuclear age was dominated by the US–USSR nuclear dyad and its dynamics determined progress in arms control and non-proliferation, whether bilateral or multilateral. The situation today is different even though the US and Russian arsenals are still much larger than those of other states. Reducing the nuclear equations to dyads quickly throws up the challenges of tackling doctrinal asymmetry, which is a dead end because changes in nuclear doctrines cannot be externally driven.

51. The second nuclear age is very different because the centre of gravity is shifting from the Euro–Atlantic to the Indo–Pacific which brings in a multiplicity of players whose equations cannot be reduced to dyads and the superpowers have become history. A nuclear exchange between two players will therefore draw in others, unlike in the past when the superpower nuclear dyad was so overwhelmingly in the Euro–Atlantic. Therefore doctrines of war fighting involving flexible response or its iterative variants only add to unpredictability in the second nuclear age.

52. This complexity would indicate that the age of bilateral (US–Russia) arms control will have to yield to a multilateral understanding in order to have a stabilizing influence in the Indo–Pacific. While global nuclear disarmament might seem a distant goal, two of the nuclear players (India and China) have a no-first-use policy and if others can be persuaded to follow similar approaches, it can lead to a multilateralization of NFU, a small first step forward.

53. Given the evolution of India’s position which places it in a unique position and the fact that it is a democracy, India cannot be opaque about its doctrine. It therefore needs to be developed further for which periodic reviews are needed. Periodic reviews would also reassure the Indian citizenry that the doctrine remains open to adaptation and improvement and is thereby responsive to contemporary security challenges. One area which was covered briefly in 1998 but has since been excluded is a review of doctrinal and arsenal related developments in other nuclear weapon states. This would add to the credibility of the Indian position. However, the basic elements of its doctrine appear sound and form a coherent whole which is consistent with India’s world-view and provides a reassuring continuity. The limitations of the nuclear deterrent which is in the process of being developed cannot be addressed by doctrinal adjustments. The speculative interpreta-

tions that the changes between the 1999 and 2003 documents have attracted indicate that the impact of any changes have to be carefully evaluated by India’s strategic planners and political leaders.

Recommendations

54. Periodic reviews of the nuclear doctrine should be undertaken so that it retains credibility vis-a-vis the potential adversary and carries reassurance for the Indian people that the doctrine takes into account growing technical capabilities and geopolitical changes impacting India’s security environment. Periodic reviews will realign nuclear doctrine to India’s assessment of its security environment, particularly the nuclear dimension, thereby explaining, updating and refining India’s rationale for its nuclear policy.

55. Periodic doctrinal reviews will serve also to enhance the engagement of India’s defence forces (army, air force and navy high commands) and facilitate greater civil–military coordination in all aspects of nuclear policy formulation.

56. The review should highlight the differences between the first and the second nuclear ages so that it exposes shortcomings of applying Cold War thinking to today’s world, together with the challenges of coping with doctrinal asymmetry with the shift from the Euro–Atlantic to the Asia–Pacific. This will also help to dispel some of the misperceptions about the Indian policy.

57. India’s current doctrine, based on the political nature of nuclear weapons and NFU, is both coherent and consistent with India’s world-view and does not need to be revised at this stage as India’s capabilities are still a work in progress.

58. Based on the strategic logic spelt out in the periodic reviews, India should continue to take disarmament initiatives, consistent with its unique position as a reluctant nuclear-armed state.

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