Indian Nuclear Doctrine: Reassessing the Strategic Ambiguities

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Abstract

The Indian nuclear doctrine, lacking parliamentary approval, comprises a series of statements made by government officials rather than a formal document binding the government. Originating in the Draft Indian Nuclear Doctrine of August 1999 announced by Brajesh Misra, subsequent statements have seemingly altered the essence and structure of the original draft, exemplified by the operationalization in January 2003. The No First Use (NFU) statement, a key component, has been subject to diverse interpretations, with some officials introducing nuances and others denying alterations. This paper contends that certain statements intentionally introduce ambiguity, while others may result from confusion or the complexities of addressing international concerns and the imperatives of a nuclear Pakistan. The study comprehensively analyses the Indian nuclear doctrine to highlight underlying contradictions and disposition within the country's nuclear force posture. Nuclear doctrines serve as guiding principles for the development, deployment, and conditions under which nuclear weapons could be used. However, the Indian nuclear doctrine and its force posture sometimes exhibit contradictions. Scholars are increasingly debating whether these disparities are unintended or deliberate. Critical analysis indicates a deliberate shift from the original NFU, with subsequent statements crafted to generate ambiguity intentionally. Deliberately induced ambiguity, particularly in the context of NFU and the nuclear command and control system, is a cause of concern for Pakistan. It creates uncertainty, contributes to an arms race and poses a threat to regional peace and strategic stability.

Keywords: Nuclear Weapons, Indian Nuclear Doctrine, No First Use, Credible Minimum Deterrence, Strategic Stability

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Introduction

India announced its Draft Nuclear Doctrine (DND) in 1999. Initially it received a favorable reception as it incorporated key policies such as No First Use (NFU, a commitment to Credible Minimum Deterrence (CMD), and the concept of punitive retaliation. Despite internal contradictions within the draft, these were generally overlooked, given the document's intent to seek opinions for potential modifications. However, a noteworthy departure occurred during the operationalization of the DND in January 2003, where certain original positions, including NFU and punitive retaliation, were rescinded and substituted with the concept of massive retaliation. This shift is explored in detail in subsequent sections.

In fundamental terms, a doctrine is delineated as "a set of principles or rules governing the employment of a capability," encompassing theological, ideological, political, military, or strategic dimensions.[4] While ideological-political doctrines propagate specific political views, military doctrines provide a theoretical framework contextualizing armed forces' operations. This theoretical framework may adopt defensive or offensive stances, prioritizing threats and formulating effective countermeasures. At both national and international levels, military doctrines serve dual purposes: prioritizing threats and elucidating the role of military capability in achieving national objectives while coordinating with other elements of national power.

The proliferation of nuclear weapons, their destructive potential, the emergence of mutually assured destruction, technological advancements, and modernization in delivery vehicles collectively precipitated a paradigm shift in military thought, leading to the evolution of nuclear doctrines. Unlike earlier doctrines focused on war-fighting, nuclear doctrines shifted their emphasis to deterrence due to the relatively less chances of direct full-scale wars between nuclear powers. Major Powers crafted nuclear doctrines to dissuade adversaries, assure allies of support in conflict, and influence opponent perceptions through the implied threat of nuclear force.

In the development of nuclear doctrines, the element of the threat of nuclear force is strategically employed to shape the opponent's perception. The credibility of a nuclear doctrine is compromised when a substantial gap exists between a state's capability and the threat it issues to its adversary. Nuclear doctrines intricately detail aspects of the deployment, employment,

[4] Joint Chiefs of Staff. 2017. *Joint Publication 3-0: Joint Operations*. U.S. Department of Defense.

threat, or use of nuclear weapons, contingent upon various scenarios, including peace and wartime, crisis situations, and the strategic environment confronting the country's leadership. Consequently, nuclear doctrines must possess the capacity to offer guidelines for policymakers and directions for the military force regarding the deployment and employment of nuclear forces. It is crucial to distinguish between doctrines and strategy.

Robert Osgood's perspective defines military strategy as an overarching plan crafted by a country to "utilize the capacity for armed coercion."[5] This plan involves coordination with economic, diplomatic, and psychological instruments of power to support foreign policy objectives through overt, covert, and tacit means. This definition underscores that strategy is a comprehensive plan of action to coerce adversaries through various means, intricately linked with the clandestine planning and direction of military operations. While nuclear doctrines mirror a state's policy intents, force postures differ in that they illustrate a country's structural capabilities.

Doctrines

According to Posen, military doctrines are important for two reasons: Firstly, the doctrines adopted by states "within a system" affect the quality of international political life that a particular state will enjoy. Furthermore, if a particular state adopts an "offensive, defensive or deterrent" form of doctrine, such character will affect the arms race, crisis escalation or intensity of competition between states. Secondly, military doctrine could affect the security of a state if the political and military means employed are not appropriate or coherent with the objectives of the state.[6]

The contemporary international system operates in an anarchic manner, lacking a central authority to regulate state behavior. Consequently, states adopt various actions and develop diverse capabilities to safeguard their interests. These actions collectively fall under the umbrella of grand strategy.[7] Military actions and policies, on the other hand, are encapsulated within military doctrines and formulated through continuous observation of adversary behavior. In the realm of military preparedness, states scrutinize the capabilities of their adversaries, as political intentions may be ambiguous, whereas actions

[5] John Baylis, James Wirtz, Eliot Cohen, Colin S. Gray, Strategy in the contemporary world, An Introduction to Strategic Studies, Oxford University Press, 2002.

[6] Barry Posen. *Sources of Military Doctrine: France, Britain, and Germany between the World Wars*. Cornell University Press, 1984.

[7] Seifudein Adem, *Anarchy, Order and Power in World Politics*, Ashgate, Hampshire, 2002.

and developments provide clearer insights. Additionally, even if one state builds capabilities for defensive purposes, competing states may not perceive them as such.

It is generally perceived that nuclear doctrines of states are in close association with the theory of nuclear revolution, which was designed to be applied to the states' with second strike capability. Nuclear revolutionist at heart believes that nuclear weapons can make state more secure.[8] Moreover, not only these weapons play their role in generating deterrent effect but they are also important in giving defenders a large benefit.[9] Thus, if a state is developing a nuclear doctrine by relying on the ideological roots of the nuclear revolution, its nuclear doctrine would be of a defensive nature.

As security is the primary goal of any state in an anarchic international system, the theorists of nuclear revolution argue that nuclear weapons eliminate the basic existential threat. Furthermore, states that possess nuclear weapons refrain from belligerent or aggressive foreign policies. However, this assumption cannot be true in all circumstances as states acquire nuclear weapons due to a number of reasons. These reasons play an important role in the deviation from nuclear doctrine by states.

Nuclear Learning theory by Joesph Nye states that strategic decision making evolves through a series of reciprocal behaviors that guide the competition to minimize the dangers of nuclear escalation, as it could be lethal.[10] Therefore, states in their strategic decision-making undergo the process of learning and unlearning due to their constant interactions in international systems. This reflects that doctrines cannot be a static phenomenon, as they are supposed to reflect the strategic thinking of states.

i. South Asian Context and Indian Nuclear Doctrine

In the case of South Asia, Pakistan and India are two hostile nuclear neighbors, where India declared its DND in August 1999 as a single proclamation. In the case of Pakistan, it is not startling that it chose not to openly declare a nuclear doctrine. Instead, Pakistan has communicated its stance to the adversary through official statements, and positions being taken

[8] Mark S. Bell, "Nuclear Reactions- How Nuclear States Behave," Cornell University Press: New York, 2021.

[9] Bell, "Nuclear Reactions- How Nuclear States Behave."

[10] Joseph S. Nye, Jr., "Nuclear Learning and U.S.-Soviet Security Regimes," International Organizations 41, no. 3 (Summer 1987), 378.

on arms control and disarmament affairs at national and international level.[11] It is believed that initially the development of Indian nuclear capabilities occurred in a doctrinal vacuum.[12] This view is a narrow understanding of the term.

Nuclear doctrines provide guidance on the deployment of nuclear weapons, and should also lay out the scenarios in which they are to be used. There was no formal or explicit nuclear doctrine by the Indian forces before August 1999. However, Dr Homi Bhabha had explicitly stated about the development of nuclear deterrence against China after the 1962 conflict in addition to deterrent *in extremis* for India as a great power.

In the 1990s, committees were formed to examine issues pertaining to nuclear weapons and advise the Prime Minister accordingly. One of the committees assessed the "cost of nuclear deterrent" in 1985 and reported it to Prime Minister Rajiv Gandhi.[13] Another committee presented the guidelines to "formulate procedures for effective control of the nation's nuclear arsenal and other issues related to nuclearization." The report was presented to then-Prime Minister P. V. Narasimha Rao.[14] These developments indicate that India was working on some of the important tenets of its nuclear doctrine before the nuclear tests of May 1998.

ii. Indian Draft Nuclear Doctrine (DND)

The overt process of formulating a policy doctrine by India began in April 1998, a month prior to conducting its nuclear tests in May 1998. The assignment to formulate nuclear doctrinal and related organizational issues was given to a Task Force, which presented a report that led to the creation of the National Security Council, Cabinet Committee on the Security and National Security Advisory Board (NSAB). The NSAB was assigned the task of drafting the Indian nuclear doctrine.[15] The document announced by the Indian National Security Advisor Brajesh Mishra in August 1999 was titled as a "Draft Report of National Security Advisory Board on Indian Nuclear Doctrine" and

[11] Zahir Kazmi, "SRBMs, Deterrence and Regional Stability South Asia: A case study of NASR and Prahar," *Regional Studies*, 30(4), Autumn 2012.

[12] V.P.S Sidhu, 'India's nuclear use doctrine," in *Planning the unthinkable: how new powers will use nuclear, chemical and biological weapons*, ed.Peter R. Lavoy, Scott D. Sagan and James J. Wirtz (Ithaca and London: Cornell University Press, 2000), p.312.

[13] George Perkovich, India's Nuclear Bomb: The Impact on Global Proliferation (Berkeley: University of California Press. 1999).273–274.

[14] Gurmeet Kanwal,. India's Nuclear Doctrine: Is a Review Necessary? New Delhi: Centre for Land Warfare Studies 2014, Available at http://www.claws.in/images publication_ pdf/1957262851_IB43-GurmeetKanwal.pdf.

[15] Cheema, p.338.

is generally known as DND. It was promulgated as "Draft" and has never been approved in full by any Indian government except its part which was operationalized in January 2003. However various successive governments in India and the international community have referred to the DND as an Indian nuclear doctrine to explain its strategic thinking. The word "Draft" in the title also reflected the view that it was open to changes according to the changing strategic thinking and objectives of India.

Different scholars have advanced different reasons for the sudden announcement of India's DND before giving it any formal title.[16] Some argue that its hastened formulation and announcement was result of the Kargil Conflict in May 1999, where two nuclear powers engaged in military hostilities after their overt nuclearization in 1998. Many scholars like P.R. Chari and Baharul Alam believed that initiation of the process of formulation of Indian nuclear doctrine began in 1998[17] and its "perfectly timed announcement"[18] was also linked with BJP's election manifesto. The objective might have been to make political gains and bolster BJP's electoral mandate. It provided the basis for formalizing India's nuclear doctrine by BJP, which came to surface after the nuclear tests in 1998. At the time of the release of the DND, Mishra had announced that the released document was yet to get government approval; the purpose behind its release was just to place the document for public debate and discussion.[19]

The DND starts with a preamble; while the first Article of the preamble declares nuclear weapons as the "gravest threat to humanity and to peace and stability in international system."[20] These words reflect India's dubious policy on nuclear issues and its perception of the use of nuclear arsenal for threatening rather than defensive purposes. This is followed by Indian views on the inadequacies of the NPT, lack of attention to nuclear-weapon states toward nuclear disarmament, and its (India's) inalienable right for autonomous strategic decision-making which are also discussed in the preamble of DND. It is only the last Article of the preamble that serves the purpose of DND because

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16 Ibid.

17 P.R Chari, "Nuclear crisis, escalation control, and deterrence in South Asia," Working Paper, Version 1.0, Henry L. Stimson Center (August 2003), p.14.

18 Baharul Alam Muhammad, "India's Nuclear Doctrine: Context and Constraints," *Heidelberg Papers in South Asian and Comparative Politics*, Working Paper No. 11 (2002), Available at: https://archiv.ub.uni-heidelberg.devolltextserver/4122/1/hpsacp11.pdf.

19 Draft Report of National Security Advisory Board on Indian Nuclear Doctrine, Ministry of External Affairs, August 17, 1999, Available at: https://mea.gov.in in-focus-article. htm?18916/Draft + Report + of + National + Security + Advisory +Board + on + Indian + Nuclear + Doctrine

20 Ibid.

it explains that the document is intended to "outline the broad principles for the development, deployment and employment of nuclear forces" and "strategy concerning force posture". The Preamble is followed by a section based on the "objectives" of the DND and Indian nuclear force.

DND is a clearly crafted and nuanced document but there are several contradictions in it. For example, Article 2.3 of DND states that India should pursue a doctrine of CMD[21] but at the same time Article 2.6 mentions that deterrence requires that India maintain "sufficient, survivable and operationally prepared nuclear forces."[22] These two articles contradict each other; if India is to follow the policy of CMD, then its requirements should also be "minimum" rather than "sufficient." In Article 2.3, DND declares "CMD" and "policy of retaliation" as "dynamic concepts" that will change according to the change in the strategic environment, technological and national security needs. Therefore, India in its nuclear force development had shown no commitment to CMD, but only used the word for its face value.

International response to DND was also not favorable to India. The then US State Department Spokesperson James Rubin had said that the US did not find it an encouraging document.[23] According to Rodney W. Jones, the doctrine is of an expansive war-fighting nature without specifying any adversary against whom the nuclear force will be used.[24] DND also emphasized that India would not be the first to strike but in case deterrence fails, it would respond with the "punitive retaliation."[25] However, in Article 2.3, it is mentioned that these concepts are dynamic and open to changes in accordance with the needs of the national security of the country. Hence, DND is a document that gives room to India to shift its policy and strategies as it suits its interest: contradictions in the document allow it not to commit to CMD or punitive retaliation. Achin Vanaik and Praful Bidwai opine that the only purpose behind such unrealistic objectives

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[21] Ibid.

[22] Ibid.

[23] Manpreet Sethi, "The Indian Nuclear Doctrine," *Strategic Analysis*, Vol.23, no, 7 (1999), Available at: https://www.tandfonline.com/doi pdf/10.1080/09700169908455116?needAccess=true

[24] Rodney W. Jones, " Nuclear Stability and Escalation Control in South Asia: Structural Factors," in *Escalation Control and the Nuclear Option in South Asia*, ed. Michael Krepon, Rowdeny Jones and Ziad Haider (Washington DC: Stimson Centre, 2004), Available at: https://www.stimson.org/wp-content/files/file attachments/Escalation%20 Control%20FINAL_0.pdf

[25] Article 2.4 of the DND, Draft Nuclear Doctrine, Ministry of External Affairs, August 17, 1999, Available at: https://mea.gov.in/in-focus-article.htm?18916 Draft +Report+of+National+Security+Advisory+Board+on+Indian+Nuclear+Doctrine.

set by India was to construct its image as "moderate" and "responsible" power in the global arena, when it shamelessly behaves in the most immoderate and irresponsible way by going openly nuclear.[26]

As nuclear doctrines shed light on the employment strategies of a country's nuclear forces, Article 5 of DND entails certain provisions regarding Command and Control (C2) of Indian nuclear forces. Article 5.1 of the DND states that nuclear weapons must be tightly controlled and released for use at the highest political level. The DND gives this authority to the person of the Prime Minister of India, or the designated successor. But, considering the development of the triad of forces that India has developed, it is naïve to assume that only the Prime Minister would approve final release of nuclear forces. In case of nuclear triad, especially naval nuclear capabilities, some pre-delegation of command of nuclear weapons may be necessitated. Sidhu views that the Indian political leadership has maintained control over Indian nuclear weapons to bolster their political support and ambitions. But to say that these political objectives do not require any kind of military preparation leading to pre-delegation is not a valid example. Many scholars have therefore stated that it would be safe for India's adversary to presume that nuclear weapons have already been released to the Indian military with pre-delegated authority to use. The nature of the DND was described as "escalatory" that generates "pre-emptive threats" and undermines deterrence stability; in case it gets adopted by the Indian government in totality.[27]

iii. Operationalization of Indian Nuclear Doctrine and NFU Question

India officially reviewed the progress of operationalization of India's Nuclear Doctrine on January 4, 2003.[28] Few elements were newly added in the document released to the public in 2003, which reflected a significant departure from the policy lines adopted in DND. The most significant change in doctrine of the 2003 was India's departure from the posture of NFU. In the text of 2003 doctrine, the word "anywhere" was added with the conditions explaining the use of nuclear weapons and second, the use of nuclear weapons against the use of chemical and biological weapons was also suggested which were not in the DND and annulled the NFU in a significant way.

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[26] Praful Bidwai and Achin Vanaik, *South Asia on a Short Fuse: Nuclear Politics and the Future of Global Disarmament* (New Dehli: Oxford University Press, 1999), p. 103

[27] Cheema, p. 342

[28] "Indian Statement on 'Operationalization' of Nuclear Doctrine," *The Institute of Disarmament Diplomacy*, January 4, 2003.

These changes reflected that India is not only prepared to use nuclear weapons in response to an attack on its territory but also in the event of an attack on its forces anywhere, even outside India, which lowered down the threshold of use of nuclear weapons. Bharat Karnad points out that "No First Use as a principle is unenforceable" and is merely a peacetime declaration which a country does not have to abide by during a war because there is no surety that nuclear weapons are only designed to be used in second strike capability.[29]

Moreover, many scholars are of the view that since NFU is only declaratory policy and does not affect India's actual war fighting capability, there is no need to change it as it will bring unwanted international pressure.[30] Sethi argues that linking the use of nuclear weapons against threat of Chemical Biological Weapons (CBW) is not possible and such a pledge is hardly making Indian nuclear deterrent credible.[31] This analysis by Indian scholars reflects that NFU is merely a declaratory claim and does not reflect the reality of Indian nuclear posture.

Kumar Sundram and M.V. Ramana criticized India for its false NFU claim and argued that in 2012 when Indian Minister of External Affairs (IMEA) Salman Khurshid at the UN General Assembly High-Level Meeting on Nuclear Disarmament, explained Indian nuclear policy which is against first use and wanted to negotiate global NFU treaty but the IMEA conveniently forgot to mention that the operationalized document contains provisions to first use nuclear weapons against chemical and biological attacks.[32]

iv. Credible Minimum Deterrence and Massive Retaliation

Another two contradictory postulates in 2003 nuclear doctrine are the claims of "building credible minimum deterrent" and nuclear retaliation based on "massive unacceptable damage."[33] Any state with the aim to cause "massive unacceptable

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[29] Bharat Karnad, *nuclear weapons and Indian Security: The Realist Foundations of Strategy* (New Delhi: Macmillan, 2002), 442.

[30] Rajesh Rajagopalan, "India's Nuclear Doctrine Debate," *Carnegie Endowment for International Peace*, June 30, 2016, Available at: https://carnegieendowment.org/2016/06/30/india-s-nuclear-doctrine-debate-pub-63950

[31] Manpreet Sethi, *Nuclear Strategy: India's March Towards Credible Deterrence* (New Delhi: Knowledge World / Centre for Air Power Studies, 2009) ,127-28

[32] Kumar Sundaram and M. V. Ramana, "India and the Policy of No First Use of Nuclear Weapons,"*Journal for Peace and Nuclear Disarmament*, Vol.1, no.1 (2018), 152-168. Available at:10.1080/25751654.2018.1438737

[33] "Indian Statement on 'Operationalisation' of Nuclear Doctrine,"*The Acronym Institute of Disarmament Diplomacy*, January 4, 2003, Available at: http://www.acronym.org.uk/old/archive/docs/0301/doc06.htm

damage will have to build forces that are diverse in nature and have ability to survive first attack, which means the creation of second strike capability, which will be against the norms of CMD but rather will be based on "credible sufficient deterrent," as indicated in the DND. Moreover, the use of words was "punitive retaliation" which is changed into "massive retaliation" in document of 2003.[34]

As the DND left a lot of questions and ambiguities regarding CMD, there were no attempts to solve these questions during the operationalization of nuclear doctrine in 2003. The question of what India would consider as "minimum" was never answered in both the documents (Draft 1999 & 2003). Lack of focus in Indian strategic decisions on the concept of minimum deterrence is evident; the differences in DND and the 2003 document on CMD highlight this lack of understanding.

As stated earlier in DND, Indian emphasis is on the policy of "punitive" retaliation, which could be achieved by countervalue targeting with not much of a nuclear arsenal but in document of 2003 the word "massive" was added, which means India must be prepared for more extensive strikes against Pakistan and China.[35] To be able to launch extensive strikes with numerically larger nuclear force will be a requirement for India, which does not go hand in hand with its proclaimed policy of CMD. Some scholars consider CMD problematic because of differences in concepts of "credible" and "minimum".[36]

In 2003 India announced that for command and control of nuclear weapons, political and administrative arrangements would be made under the Nuclear Command Authority (NCA). NCA is combination of different organizations to take decisions on the deployment of nuclear weapons. Prime Minister as the Chief Executive and head of the cabinet, exercises the ultimate control over nuclear weapons.[37] But, in case of crisis, the geographic continuity, short distances and short flight time between India and Pakistan would generate pressures for the pre-delegation of the authority.[38]

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[34] Prime Minister's Office, "Cabinet Committee on Security Reviews Progress in Operationalizing India's Nuclear Doctrine," press release, January 4,2003, http://pib.nic.in/archieve/lreleng/lyr2003/rjan2003/04012003/r040120033.html.

[35] Frank O' Donnell and Debalina Ghoshal, "Managing Indian deterrence: pressures on credible minimum deterrence and nuclear policy options," The Nonproliferation Review, Vol.25, no.5-6 (2018), Available at: https://sci-hub. se/https://www.tandfonline.com/doi/full/10.1080/10736700.2019.1565187

[36] Reshmi Kazi, "India's Nuclear Doctrine: A Study of Its Tenets," *Indian Foreign Affairs Journal*, Vol.9, no.1 (January–March 2014), 46–55.

[37] C. Raja Mohan, "Nuclear Command Authority Comes in to Being,"*The Hindu*, 2003.

[38] Cheema, p. 350.

These inherent contradictions in the DND that continued in the 2003 document initiated the debate on the intentions of the Indian government and policy-making circles right after the documents were released.

Indian Nuclear Doctrine and Issues of Command and Control (C2)

Nuclear C2 system is based on composition of different facilities, personnel and procedures in planning, directing and operating a broad spectrum of military operations across the spectrum of conflict where they must be able to deliver the order of command to the military.[39] This definition reflects that there are two components of C2 systems: first is based on system, which could include operations, procedures, infrastructures and capabilities; and the second is based on human factors, on which the command is based and who will take decisions.

DND highlights the need for India to have "robust command and control system" with final authority of nuclear weapons release vested in the "Prime Minister of India or his designated successor." Moreover, the need to build facilitating infrastructure such as intelligence and early warning system for the C2 system to perform effectively was also addressed in the DND.

The point of civilian dominance over Indian nuclear doctrine gained India a lot of brownie points in the international community. However, these points and further developments in Indian force posture raised many questions. The most frequently raised issue is development of the third leg of the nuclear program, which is the naval leg and its contradiction with the issue of direct civilian control over release of nuclear weapons. It is easier and manageable to induce land-based delivery systems and their launch protocols in C2 systems, but naval nuclear submarines with nuclear weapons operate entirely on different formats. Their mode of communication is mostly Very Low Frequency (VLF) or Extremely Low Frequency (ELF), which can become target of an adversary strike during conflict. In such a situation, mostly submarine crew reserve certain rights to utilize nuclear weapons or not is a question that goes unanswered in Indian nuclear policy.

These contradictions make it harder to place Indian nuclear C2 system into either assertive or delegative systems. Assertive C2 system ensures the centralized C2 systems, wherein only top leadership reserves the right to use nuclear weapons, such control minimizes the threat of unauthorized or accidental use. On the other hand, delegative system allows the right to use

[39] Shaun Gregory, Nuclear Command and Control in NATO, London Macmillan 1996, pp3-4 & and also in Zafar I Cheema, Indian Nuclear Deterrence, its evolution, development and Implications for South Asian Security, Oxford University Press: Oxford, 2010, p 348.

nuclear weapons in times of conflict to regional leaders or officers, ensuring quickest response possible for any country. However such systems definitely pose the threat of unauthorized or accidental use. Thus, it is difficult for states to opt between one of the two policies, which generates "always/never dilemma" for states.[40]

Ashely Tellis acknowledges that Indian nuclear policy would become a "force-in-being" where its forces will be strategically active but operationally dormant. It would allow India to take action against its adversary within a matter of hours to weeks and at the same time would allow it to not spend obscene amounts on ready-to-use arsenals. Scholars challenge the "realistic" nature of these claims as India is continuously moving towards the acquisition and build-up of weapons and capabilities of canisterized nature. Additionally, a crucial factor in this context is that since the Indian nuclear doctrine is founded on NFU policy, the C2 system must be designed to withstand an initial strike. This ensures that India can retaliate without the risk of unauthorized or accidental use. Although, India claims to have an assertive C2, interestingly, its nuclear doctrine does not shed light on any scenario where its apex nuclear decision-making body might become a target.[41]

Another important issue regarding the Indian C2 system identified by Indian and regional scholars is the synergy among civil and military leadership over the control of nuclear weapons.[42] The primary point of contention between the two sides revolves around the dominance in the nuclear decision-making cycle. Initially, during the nuclear build-up process, the prevailing assumption among analysts was that India's atomic bureaucracy and political leadership were hesitant to share control of the decision-making cycle with the military.

This assumption yields two consequences. First, when India asserts that its civilian leadership maintains control over its nuclear weapons, the West accepts this narrative based on India's nuclear program history. However, the second, often overlooked consequence is the marginalized role of the military in C2 structures. If the military's role is diminished, it raises questions about the efficacy of C2 systems. The military plays a crucial role in these structures,

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[40] Peter D. Feaver, Command & Control in Emerging Nuclear Nations," International Security, Vol. 17, No. 3 (Winter, 1992-1993), pp. 160-187, Available at: https://doi.org/10.2307/2539133

[41] Zafar I. Cheema, Indian Nuclear Deterrence, its evolution, development and Implications for South Asian Security, Oxford University Press: Oxford, 2010, p 349.

[42] Lauren J. Borja and M.V. Ramana, "Command and Control of India's Nuclear Arsenal," Journal of Peace and Nuclear Disarmament, Vol 3(1), 2020, p 1-20 Available at: https://doi.org/10.1080/25751654.2020.1760021

not only as operators but also in decision-making. Neglecting their role could lead to the formulation of unrealistic policies, sometimes influenced by technological fanaticism, as is evident in the case of India.

Thermonuclear Testing and Indian Nuclear Doctrine

It is apparent from the key features of the Indian DND that India is steadfast in its refusal to accept any limitations on its research and development (R&D) capabilities. The document indicates India's intention to persist in sub-critical nuclear testing. Prominent Indian scholars including Bharat Karnad openly criticize any inclination of India to sign either the Comprehensive Test Ban Treaty (CTBT) or the Fissile Material Cutoff Treaty (FMCT). Karnad's perspective posits that such agreements would curtail India's weapons yield to below the megaton range and impose numerical limitations on nuclear weapons, thus posing a perceived threat to national security. He advocates for India to vigorously negotiate and secure significant concessions in exchange for endorsing the CTBT and FMCT.

According to him, the minimum acceptable outcomes should include provisions allowing India to conduct additional thermonuclear tests and amass sufficient fissile material stocks for over 1000 nuclear warheads. Implicitly, Karnad hints at the possibility that, if India fails to secure an attractive agreement, it might resort to exporting its nuclear technology and materials. Dismissing the NFU policy as a mere facade, he comments that it represents one of those restrictions that countries are willing to observe only in times of peace, with the caveat that it may be disregarded during wartime.[43]

India's renewed interest in thermonuclear testing is driven by a multifaceted agenda aimed at modernizing and expanding its nuclear capabilities. This inclination is rooted in the perceived need for a credible and effective deterrent, prompting calls for the resumption of open-ended nuclear tests to acquire a diverse range of proven nuclear and high-yield thermonuclear weapons, thereby enhancing India's strategic influence. Simultaneously, there is a recognition within India's strategic community that recalibrating the nuclear doctrine and posture is essential to address evolving security challenges in the region, leading to the envisagement of a two-tiered nuclear doctrine with credible minimum deterrence principles.

[43] Ashley J. Tellis, Striking Asymmetries: Nuclear Transitions in South Asia, Carnegie Endowment for International Peace, 2022, https://carnegieendowment org/files/202207-Tellis_Striking_Asymmetries-final.pdf

However, the ramifications of India's resumption of thermonuclear testing extend beyond its borders, particularly impacting the strategic stability in South Asia. Firstly, the move may trigger an arms race with Pakistan, as a significant augmentation of India's nuclear capability could prompt Pakistan to respond by further expanding its own arsenal, escalating tensions and increasing the risk of nuclear conflict. Secondly, such testing may disrupt the existing nuclear deterrence equilibrium in the region, potentially leading to a shift in the balance of power and more aggressive nuclear posturing by both nations.

Additionally, the international community, including other nuclear-armed states, may express concerns and increase scrutiny of India's actions, affecting its diplomatic relations and global standing. Thus, the resumption of thermonuclear testing by India is a complex issue with profound implications for regional and global security.

Contemporary Debate on Indian Nuclear Doctrine: No First Use and Counterforce Strategy

After a decade or so of issuance of Indian nuclear doctrine, statements from retired National Security Advisor Shivshankar Menon, former Defense Minister Manoher Parikar and former Strategic Forces Commander Lt. Gen. B.S. Nagal have started a new wave of debate in international media and academia. The focal point of this debate is that India would consider a nuclear first use as a preemptive counterforce attack against Pakistan and that "India has already relinquished the policy of NFU."[44] Furthermore, considering the ongoing tensions between China and India in the western Himalayas where there is significant asymmetry in New Delhi and Beijing's conventional military power, the New Delhi is at a significant loss. Therefore, the current debate on Indian nuclear doctrine considers this as an opportunity for India to align its declared policy with its apparent intentions.[45]

In 2014, before elections, BJP issued a rejoinder in its election manifesto that favored the revision and change in basic tenets of India's NFU policy. It states that "strategic gains acquired by India during the earlier Atal Behari Vajpayee led BJP government on the nuclear program have been frittered away by Singh's Congress." The BJP therefore pledged to "study in detail

[44] Alicia Sanders-Zakre and Kelsey Davenport, "Is India Shifting Nuclear Doctrine?" *Arms Control Association*, May, 2017, Available at: https://www armscontrol.org/act/2017-05/news/india-shifting-nuclear-doctrine

[45] Harsh V. Pant and Yogesh Joshi, "Is India Turning a Decades of Nuclear Doctrine," *Foreign Policy*, Available at: https://foreignpolicy.com/2020/10/23 india-nuclear-no-first-use-strike-china-pakistan/

Indian nuclear doctrine, revise and update it, to make it relevant to the challenges of current time."[46]

Indian former External and Defense Minister Jaswant Singh, while speaking in the Indian Parliament in 2011, said that the policies of NFU with "credible deterrence minimum force" are now strategically out of date and should be revoked. This issue had earlier been debated in Indian Parliament Standing Committee on External Affairs, where members asked about India's adherence to the policy of NFU in view of changing security situation at its borders. However, Indian Defence Ministry on several occasions had refused to debrief members of the Parliament on Indian nuclear policy and posture, even in a close setting.[47]

Proponents of change in the Indian nuclear doctrine in Indian policy making circles are of the view that, as India's security environment is changing, its nuclear doctrine should also change to add elements of "credibility" and "transparency" to India's nuclear policy and posture.

In 2016, India's then-Defense Minister Manohar Parrikar stated that India could not bind itself to NFU for eternity, which raised serious concerns regarding India's commitment to the NFU policy.[48] Again, in 2019, during his visit to Pokhran nuclear test site, the incumbent Indian Defense Minister Rajnath Singh stated that India's commitment to NFU is not sacrosanct and what happens in the future will depend on the circumstances.[49] Former Indian General B.S. Nagal is also one of the leading advocates of revocation of NFU on the grounds that this pledge is limiting India's response options against its adversaries, especially Pakistan.[50]

These statements reflect that a debate in India has started about taking actual measures to change its nuclear doctrine, especially revoking its NFU

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[46] "Bharatiya Janta Party", *bjp.org*, Available at: http://www.bjp.org/images pdf_2014/full_ manifesto_english_07.04.2014.pdf

[47] Indian Parliament Lok Sabha Standing Committee on Defence, "Annexure: Minutes of the Third Sitting of the Standing Committee on Defence, March 28, 2003," p. 4, in "Nineteenth Report: Ministry of Defence: Demands for Grants, 2003–2004," April 2003, . and https://scihub.se/https://www.tandfonline com/doi/full/10.1080/10736700.2019.1565187

[48] "Manohar Parrikar questions India's no-first-use nuclear policy, adds 'my thinking'", *The Indian Express*, November 11, 2016, https://indianexpress.com article/india/india-news-india/manohar-parrikar-questions-no-first-use-nuclear policy-adds-my-thinking-4369062/

[49] Kumar Sundaram and M. V. Ramana, "India and the Policy of No First Use of nuclear weapons," Journal *for Peace and Nuclear Disarmament*, Vol.1, no.1 (2018), 152-168

[50] Shashank Joshi, "India's nuclear doctrine: The fog lifts," The Interpreter, July 7, 2014, https:// www.lowyinstitute.org/the-interpreter/india-s-nuclear-doctrine-fog-lifts

policy. However, in reality Indian nuclear doctrine has always been an open-ended document with a lot of lacunas and jargons, which gave Indian policy-makers a huge space to stir the policy in any direction that seems favorable to them.

Vipin Narang started another round of debate in this regard at Carnegie Endowment's International Nuclear Policy Conference in Washington, when he argued that India's NFU policy has "far greater flexibility" than generally recognized.[51] He expressed these views based on what he deduced from the book by former National Security Advisor Shivshankar Menon. Narang argued that Menon's views reflect that India could be adopting a counterforce strategy as opposed to countervalue strategy.[52]

This argument was again supported by Clary and Narang in their paper titled "India's Counterforce Temptations: Strategic Dilemmas, Doctrine and Capability," wherein it is argued that India has relinquished the policy of NFU. If not, then why has it invested heavily in building diverse, accurate and responsive nuclear delivery vehicles at a higher state of readiness and procurement of a wide array of surveillance platforms and ballistic missile defenses.[53] Both authors further added that pursuit of these technologies by India is not result of any strategic drift or strategic conclusion but reflects conscious pursuit of India's policy-makers to have more flexible options, beyond countervalue targeting. Moreover, they argue that unlike other national commentators, Menon's view of "preemption" is consistent with the declared Indian nuclear doctrine and its deliberate ambiguity on NFU is in India's strategic interest. Menon views India's NFU and targeting policy as a grey area because current declared doctrines do not go into the details of explaining the scenarios. Thus, this "doctrinal silence" depicts that Indian nuclear doctrine contains enough ambiguity to permit preemptive nuclear strike.[54]

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[51] Alicia Sanders-Zakre and Kelsey Davenport, "Is India Shifting Nuclear Doctrine?" *Arms Control Association*, May, 2017, Available at: https://www armscontrol.org/act/2017-05/news/india-shifting-nuclear-doctrine

[52] Frank O' Donnell and Debalina Ghoshal, "Managing Indian deterrence: pressures on credible minimum deterrence and nuclear policy options," The Nonproliferation Review, Vol.25, no.5-6 (2018), Available at: https://sci-hub. se/https://www.tandfonline.com/doi/full/10.1080/10736700.2019.1565187

[53] Christopher Clary and Vipin Narang, "India's Counterforce Temptations: Strategic Dilemmas, Doctrine and Capability," *International Security*, Vol. 43, no.3 (2018), Available at: https://www.belfercenter.org/sites/default/files/files/ publication/isec_a_00340.pdf.

[54] Ibid.

Scholars like Frank O'Donell believe that Indian contemporary force posture and strategic thinking reflects a growing "appetite for deliberate escalation" and today Indian nuclear policy is based on utilization of "flexible response options" rather than NFU.

Another important contemporary trend is erosion of "recessed deterrence," where there is a geographical distance between warheads and delivery systems and weapon systems are not mated. Today India's Agni ballistic-missile systems are undergoing canisterization, wherein the warhead remains permanently attached to the missile systems. Moreover, submarine-launched ballistic missiles in Ballistic Missile Submarines (SSBNs) are also deployed in tube launchers. In terms of the Strategic Forces Command (SFC) alert protocol, specifically for the Arihant, the vessel is armed and begins a deterrence patrol upon the "first indications of a crisis situation," rather than in the later stages of a major crisis. The SFC defines a crisis not as the onset of actual conflict but as any scenario where Indian decision-makers anticipate the potential for military escalation with Pakistan or China.[55]

Conclusion

The prospect of India revising its nuclear doctrine appears remote, given the prevailing presence of ambiguities and linguistic lacunae that hinder a definitive commitment to a singular policy, thereby affording latitude for the pursuit of offensive capabilities. Scholars posit that an explicit alteration of India's NFU policy may not be imperative, as the country could engage in contemplation and planning for the deployment of nuclear weapons without public disclosure. Moreover, India, through the projection of a diplomatic façade of restraint facilitated by the ambiguous NFU policy, strategically situates itself within the Nuclear Suppliers Group (NSG) while concurrently seeking acknowledgment in the global nuclear mainstream. Consequently, an overt modification of the Indian nuclear doctrine could imperil these overarching strategic objectives.

Within the framework of South Asian strategic stability, Pakistan has consistently refrained from regarding India's nuclear doctrine as a faithful representation of India's policy intentions. This skepticism emanates from the doctrinal contradictions, notably pertaining to the NFU statement, engendering a consequential deficit in mutual trust. The absence of lucidity in Indian policy

[55] Yogesh Joshi, "Angles and Dangles: Arihant and the Dilemmas of India's Undersea Nuclear Weapons," War on the Rocks, January 14, 2019, https:/warontherocks.com/2019/01/angles-and-dangles-arihant-and-the-dilemma-of indias-undersea-nuclear-weapons/

circles concerning critical issues such as NFU, CMD, and massive retaliation emerges as a significant apprehension for Pakistan in both crisis and peacetime scenarios. During periods of crisis, the prevailing lack of clarity contributes to heightened levels of "uncertainty," placing both nations on an elevated state of "higher alert." During peacetime, this ambiguity fosters an enduring "arms race" as India, compelled by the imperatives of its military complex, engages in the accumulation, development, and acquisition of advanced technologies, including those pertaining to nuclear weapons. The conclusion underscores the intricacies that define the nuclear landscape in the region, accentuating the potential ramifications of ambiguity on crisis management and stability in South Asia.