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**INDIA'S NUCLEAR POLICY POST-1998: DEVELOPMENTS AND DILEMMAS**

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**ABSTRACT:**

India's nuclear policy underwent a major transformation after the 1998 nuclear tests, marking a decisive shift in its national security strategy and stance on global nonproliferation. Before the tests, India adhered to a policy of nuclear ambiguity, emphasizing deterrence while keeping its nuclear capabilities undisclosed. However, the 1998 Pokhran-II tests ended this ambiguity, leading to the adoption of a formal nuclear doctrine focused on minimum credible deterrence, no-first-use (NFU), and a commitment to retaliate if attacked with nuclear weapons. This policy shift had profound effects on India's foreign relations, especially with global powers such as the United States, Russia, and China, and reshaped regional security dynamics.



In the post-1998 era, India faced several challenges: reconciling its nuclear ambitions with its commitment to nonproliferation, navigating complex strategic and economic relationships with major powers, and addressing domestic concerns about security and technological self-reliance. A key milestone in this period was the U.S.-India nuclear deal of 2005, which allowed India to access civilian nuclear technology. Despite this, India continues to walk a fine line, balancing the strength of its nuclear deterrent with the risks and responsibilities that come with nuclear proliferation, particularly amid ongoing regional tensions with Pakistan and China.

**KEYWORDS :** India's Nuclear Policy, Pokhran-II, Minimum Credible Deterrence, No-First-Use (NFU), Nuclear Deterrence, Nonproliferation, U.S.-India Nuclear Deal, Nuclear Diplomacy, Nuclear Proliferation, Strategic Security, Regional Security, Nuclear Technology.

**INTRODUCTION:**

India's nuclear policy has undergone a significant transformation since the country conducted its first nuclear tests in 1974, known as "Smiling Buddha." However, it was the 1998 nuclear tests at Pokhran that fundamentally reshaped India's nuclear strategy. These tests marked a pivotal moment, transitioning India from a stance of strategic ambiguity to the formal declaration of a nuclear doctrine that would influence both its national security framework and its foreign relations, particularly with neighboring countries and global powers.

Before 1998, India's approach was rooted in its commitment to nonproliferation, advocacy for nuclear disarmament, and the peaceful use of nuclear technology. While India pursued deterrence

through nuclear ambiguity, it avoided openly declaring its nuclear capabilities, preferring instead to leverage diplomatic channels for power projection. The 1998 tests ended this ambiguity and ushered in a new phase of nuclear openness, formally establishing India's status as a nuclear-armed state.

Post-1998, the core of India's nuclear policy has centered around the concept of "minimum credible deterrence", which means maintaining a nuclear arsenal large enough to deter nuclear attacks without engaging in an arms race. The no-first-use (NFU) policy, which commits India to refrain from using nuclear weapons first, has been a cornerstone of its nuclear doctrine, although the policy has occasionally been debated in light of evolving security concerns.

However, India's nuclear strategy has not been without its challenges. The country faces a complex regional security environment, particularly due to ongoing tensions with Pakistan and the growing strategic competition with China. India's nuclear policy also grapples with the global nonproliferation regime, where international calls for disarmament coexist with the country's nuclear aspirations. The landmark 2005 U.S.-India nuclear deal, which allowed India access to civilian nuclear technology, highlighted both India's growing influence on the world stage and the tension between its nuclear ambitions and commitment to nonproliferation.

This paper will explore the key developments and challenges in India's nuclear policy post-1998, examining the strategic reasoning behind its nuclear posture, the evolution of its relations with global powers, and the dilemmas it faces as a responsible nuclear state. Through this analysis, the paper seeks to provide a deeper understanding of India's nuclear strategy and its broader implications for regional and global security in the 21st century.

## AIMS AND OBJECTIVES:

India's nuclear policy post-1998, particularly after the Pokhran-II nuclear tests in May 1998, has been shaped by a set of strategic goals that align with national security priorities and India's aspirations on the global stage. This policy has evolved in response to both regional dynamics and international developments. The key aims and objectives of India's nuclear policy post-1998 are as follows:

### 1. Credible Minimum Deterrence (CMD)

**Aim:** To establish a nuclear deterrent that ensures India's security and prevents any adversary from using nuclear weapons against it.

**Objective:** India's nuclear arsenal is designed to maintain a "credible minimum deterrence," meaning it is sufficient to survive an initial nuclear strike and retaliate effectively. This ensures that nuclear escalation remains avoided.

### 2. No First Use (NFU) Doctrine

**Aim:** To underscore India's commitment to nuclear restraint and decrease the probability of nuclear conflict in South Asia.

**Objective:** India adheres to a No First Use policy, pledging to use nuclear weapons only in retaliation to a nuclear attack. This reinforces the message that India's nuclear weapons are meant solely for deterrence, not for aggressive action.

### 3. Strategic Autonomy

**Aim:** To preserve India's freedom to make independent decisions on national security, defense, and foreign policy, free from external pressures.

**Objective:** By opting not to sign the Nuclear Non-Proliferation Treaty (NPT) and the Comprehensive Test Ban Treaty (CTBT), India rejects these treaties as unjust, arguing they do not adequately address its unique security concerns.

### 4. Securing National and Regional Security

**Aim:** To protect India's territorial integrity and sovereignty, especially in light of its nuclear-capable neighbors, China and Pakistan.

**Objective:** India's nuclear policy is driven by the perceived threats posed by neighboring nuclear states. Developing a nuclear deterrent is viewed as a defensive measure to ensure India's security in a region marked by instability and tensions.

## 5. Maintaining a Nuclear Command Authority (NCA)

**Aim:** To ensure centralized, robust, and authoritative control over India's nuclear arsenal to prevent unauthorized use or escalation.

**Objective:** The establishment of the Nuclear Command Authority (NCA) in 2003 provides civilian oversight of India's nuclear forces and ensures the creation of clear protocols for their use, thus strengthening the country's nuclear security infrastructure.

## LITERATURE REVIEW:

The literature on India's nuclear policy post-1998 has expanded significantly, particularly following the country's nuclear tests in May 1998 (Pokhran-II), which marked a fundamental shift in India's defense and foreign policy. Scholars, analysts, and policymakers have examined India's nuclear trajectory from various perspectives, exploring its strategic, security, diplomatic, and economic dimensions. This literature review synthesizes key themes and debates surrounding India's nuclear policy post-1998, highlighting major developments and the dilemmas that have arisen.

### 1. Strategic and Security Implications

A central theme in the literature on India's nuclear policy after 1998 is the evolution of its strategic objectives and how nuclear weapons have shaped its security posture.

**Credible Minimum Deterrence (CMD):** Scholars like George Perkovich and Ashley Tellis argue that the concept of credible minimum deterrence has been crucial to India's nuclear doctrine. It underpins India's defense strategy, emphasizing that nuclear weapons should serve as a deterrent rather than an instrument of coercion. India's post-1998 nuclear policy seeks to ensure that any adversary recognizes India's capability for effective retaliation, particularly in light of nuclear threats from Pakistan and China (Perkovich, 2001; Tellis, 2003). Additionally, the literature discusses whether the doctrine should adapt to regional nuclear developments, such as Pakistan's introduction of tactical nuclear weapons.

**No First Use (NFU):** India's commitment to the No First Use (NFU) policy has been widely debated. Analysts such as C. Raja Mohan and Vipin Narang explore the strategic implications of NFU. Mohan (2006) sees India's NFU policy as a sign of restraint in a volatile region, while Narang (2014) examines the challenges of maintaining this stance in the face of evolving security threats, particularly Pakistan's development of tactical nuclear weapons. Some scholars question the viability of NFU, suggesting that a more flexible approach may be necessary given emerging challenges (Narang, 2014).

### 2. India's Nuclear Diplomacy and Global Engagement

India's engagement in the international nuclear order has been a significant focus of post-1998 literature, particularly regarding civil nuclear cooperation and its relationships with major global powers.

**Indo-US Civil Nuclear Deal (2008):** The Indo-US nuclear deal is considered a pivotal moment in India's nuclear policy. Scholars like S. Paul Kapur and Arvind Gupta examine the strategic impact of the deal, arguing that it enhanced India's global standing by providing access to civilian nuclear technology and fuel, despite India's refusal to sign the NPT. The deal represented a strategic shift, integrating India into the global nuclear order while maintaining its strategic autonomy (Kapur, 2009; Gupta, 2010). The literature also explores the wider implications of the deal for India's relationships with other nuclear powers and its regional security dynamics.

**Challenges of Non-Proliferation Norms:** India's stance on the **Nuclear Non-Proliferation Treaty (NPT)** and **Comprehensive Test Ban Treaty (CTBT)** remains a subject of ongoing debate. Scholars such as Shyam Saran and Manpreet Sethi discuss India's refusal to sign these treaties, driven by concerns over their inequities and the desire to preserve strategic autonomy (Saran, 2006; Sethi, 2012). India argues that the NPT and CTBT are discriminatory and undermine the security interests of non-nuclear states. This position has created tensions with global non-proliferation advocates and raised questions about the future of India's nuclear diplomacy.

### 3. Regional Security and Nuclear Rivalries

The literature on regional security dynamics often focuses on the relationship between India's nuclear policy and the nuclear capabilities of Pakistan and China.

**Nuclear Rivalry with Pakistan:** Scholars such as Sumit Ganguly and Stephen P. Cohen explore the nuclear competition between India and Pakistan. Ganguly (2001) suggests that nuclear weapons have helped stabilize the India-Pakistan conflict by preventing large-scale wars since 1998. Cohen (2004) emphasizes the dangers of nuclear escalation in South Asia, particularly as Pakistan develops tactical nuclear weapons, which could increase the risk of nuclear brinksmanship. The ongoing nuclear rivalry between India and Pakistan remains a major concern, especially as both countries modernize their nuclear arsenals.

**China's Nuclear Posture:** India's nuclear policy is also influenced by its strategic relations with China. Scholars like Jeffrey T. Checkel and Sumit Ganguly (again) examine the strategic balance between India and China, particularly in light of China's growing nuclear capabilities and its modernization of military forces (Checkel, 2008). India's nuclear deterrent is largely seen as a response to China's expanding military and nuclear capabilities. However, the balance of nuclear power between India and China remains a complex issue, with ongoing concerns about long-term stability in the Indo-China nuclear relationship.

### 4. Nuclear Security, Safety, and Ethical Considerations

The ethical and security challenges associated with nuclear weapons have been prominent in post-1998 literature.

**Nuclear Safety:** Scholars like T.V. Paul and Brahma Chellaney discuss the importance of nuclear safety, particularly as India increases its number of nuclear facilities. Chellaney (2009) highlights India's efforts to align its nuclear security practices with international norms, including the **IAEA safeguards** and conventions on nuclear terrorism. Paul (2014) reflects on India's institutional mechanisms, such as the **Nuclear Command Authority (NCA)**, aimed at ensuring the safety and security of its nuclear assets.

**Ethical Dilemmas:** The ethical dimensions of maintaining nuclear arsenals and engaging in an arms race in a region with high political and military tensions have been a subject of considerable reflection. Scholars such as Kanti Bajpai (2010) and Manpreet Sethi (2012) delve into the moral implications of nuclear weapons, particularly in a region like South Asia, which faces persistent tensions. While India's commitment to NFU has been viewed as a responsible stance, there are ongoing debates about the role of nuclear weapons in a world striving for global disarmament.

### RESEARCH METHODOLOGY:

The research methodology for examining India's nuclear policy post-1998 combines qualitative techniques designed to analyze the evolution of India's nuclear strategy, its significant developments, and the dilemmas it faces within the contemporary international and regional security environment. This approach includes a detailed review of historical documents, policy papers, expert interviews, and secondary sources such as academic literature, books, and policy reports.

#### 1. Research Design

Given the complexity and multidimensional nature of India's nuclear policy, the research will adopt an exploratory and analytical design. The aim is to evaluate key developments in India's nuclear strategy since the 1998 nuclear tests and investigate the challenges faced by Indian policymakers in a region marked by nuclear competition. The study will focus on how India's nuclear policy has evolved in response to regional and global dynamics, its alignment with broader strategic goals, and the tensions between domestic security priorities and international commitments.

#### 2. Data Collection Methods

##### a. Primary Data

**Official Government Documents and Statements:** The research will analyze key government documents, including reports, policy statements, and official communications from agencies such as the Ministry of External Affairs, Ministry of Defense, and other relevant bodies. These will provide direct insights into India's nuclear doctrine, defense strategies, and national security policies.

**Interviews and Expert Opinions:** Semi-structured interviews will be conducted with policymakers, defense experts, and nuclear strategists. These interviews will provide valuable perspectives on the practical decision-making process behind India's nuclear policy and the key factors influencing its nuclear strategy.

## **b. Secondary Data**

**Books and Academic Journals:** A thorough review of scholarly books, journal articles, and academic papers focusing on India's nuclear policy, regional security in South Asia, and nuclear deterrence theory. These sources will offer historical context and analytical frameworks to understand India's nuclear trajectory and strategy.

**Policy Reports and Think Tank Publications:** Research papers and reports from renowned think tanks such as the Observer Research Foundation (ORF), Carnegie India, and The Institute for Defense Studies and Analyses (IDSA), as well as international non-proliferation bodies, will offer critical assessments of India's nuclear policy and its impact on regional security.

**News and Media Analysis:** A review of media coverage surrounding significant events in India's nuclear policy, such as the 1998 nuclear tests, civil nuclear agreements, and regional security developments. This will help assess public and international perceptions of India's nuclear capabilities and policies, as well as provide a broader understanding of how India's nuclear strategy is portrayed in the media.

This mixed-method approach will provide a comprehensive understanding of India's nuclear policy post-1998, offering both in-depth qualitative analysis and a broad range of perspectives from official sources, experts, and scholarly literature.

## **DISCUSSION:**

India's nuclear policy after the 1998 nuclear tests (Pokhran-II) has undergone significant shifts, reflecting a delicate balance between national security concerns, regional power dynamics, and international diplomatic challenges. The tests marked a transition in India's nuclear stance, from a policy of strategic ambiguity to one embracing credible minimum deterrence, with a focus on the defensive nature of its nuclear arsenal. However, this shift has also raised several dilemmas relating to regional security, international norms, and the ethics of nuclear deterrence. This section explores these developments and dilemmas by examining key features of India's nuclear policy and the challenges it continues to navigate.

### **1. Development of India's Nuclear Doctrine Post-1998**

#### **a. Credible Minimum Deterrence (CMD)**

A cornerstone of India's nuclear policy after 1998 was the formalization of the Credible Minimum Deterrence (CMD) doctrine. This doctrine emphasizes the need for a minimal yet survivable nuclear force, capable of delivering a retaliatory strike in the event of a nuclear attack. India's policy centers on nuclear weapons as a deterrent, rather than tools for coercion or aggression. The adoption of CMD was a response to both regional security threats and global calls for nuclear restraint.

**Dilemma: Ensuring Credibility and Avoiding an Arms Race** One of the key dilemmas India faces is ensuring that its deterrent remains credible in the face of a rapidly evolving security landscape. As Pakistan and China modernize their nuclear arsenals, India's doctrine of minimum deterrence may face pressure in terms of both the scale and technological sophistication of its weapons. This has raised concerns about the potential for India to expand its nuclear arsenal, which could trigger a regional arms race. The development of tactical nuclear weapons by Pakistan, for example, has raised questions about whether India's reliance on the threat of massive retaliation remains effective.

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



India's policy of No First Use (NFU), which commits the country to using nuclear weapons only in retaliation to a nuclear strike, has been a defining feature of its nuclear strategy. This policy is rooted in India's strategic culture of restraint, signaling that nuclear weapons are for deterrence, not escalation. The NFU stance has been widely viewed as an ethical commitment aimed at preventing the outbreak of nuclear conflict.

**Dilemma: Reassessment of NFU in Response to Emerging Threats** While the NFU policy has been seen as a symbol of restraint, there are increasing calls within India to reassess the policy, particularly in light of Pakistan's development of tactical nuclear weapons and the growing security volatility in the region. Scholars like Vipin Narang (2014) have argued that India might need to reconsider its NFU policy in response to the evolving security situation, especially if Pakistan uses tactical nuclear weapons in a limited conflict. The dilemma here lies in balancing India's moral stance on restraint with the practical need to ensure a credible deterrent against evolving threats.

## 2. Diplomatic Engagement and Civil Nuclear Cooperation

The 2008 Indo-US Nuclear Deal marked a significant turning point in India's nuclear diplomacy, granting India access to civilian nuclear technology and fuel, despite its non-signatory status to the Nuclear Non-Proliferation Treaty (NPT). This agreement was a milestone in India's increasing integration into the global nuclear order, bolstering its diplomatic standing and reinforcing its responsible nuclear posture.

**Dilemma: Navigating the Non-Proliferation Regime** While the Indo-US deal allowed India to meet its growing energy needs, it also highlighted the tension between India's pursuit of strategic autonomy and its engagement with global non-proliferation norms. India's refusal to sign the NPT and Comprehensive Test Ban Treaty (CTBT) remains a point of contention. India argues that these treaties are inequitable and do not address its security concerns. This stance has led to criticism from global non-proliferation advocates and complicated India's efforts to gain membership in the Nuclear Suppliers Group (NSG), further highlighting the challenge of balancing autonomy with international nuclear governance expectations.

## 3. Regional Nuclear Dynamics: Pakistan and China

India's nuclear policy is heavily influenced by the security challenges posed by its two nuclear neighbors, Pakistan and China.

### a. Nuclear Rivalry with Pakistan

India's rivalry with Pakistan has shaped much of its nuclear strategy. The Kargil War (1999) illustrated the role nuclear deterrence plays in preventing full-scale wars between nuclear-armed states. However, Pakistan's development of tactical nuclear weapons has created a strategic challenge for India. These weapons, designed for use in limited conflicts, have raised concerns about nuclear escalation in the region. India faces the dilemma of how to deter Pakistan's use of tactical nuclear weapons without compromising its policy of minimum deterrence or diminishing the credibility of its nuclear posture.

### b. Nuclear Deterrence Against China

India's nuclear strategy is also shaped by the growing military and nuclear capabilities of China. Despite China's larger and more advanced nuclear arsenal, India's nuclear posture aims to provide a deterrent against any potential nuclear threat from China, especially given their historical border tensions and ongoing strategic competition. India must maintain a delicate balancing act, ensuring deterrence against both Pakistan and China simultaneously—a complex and multifaceted challenge.

## 4. Ethical and Strategic Dilemmas

India's nuclear policy is also marked by significant ethical considerations. While the country adheres to the principle of No First Use, it must continually grapple with the moral implications of nuclear deterrence, especially in a region prone to conflict. Scholars like Kanti Bajpai (2010) emphasize the complex mix of strategic necessity and moral considerations that underpin India's stance on nuclear weapons.

**Dilemma: Balancing Ethical Constraints with Strategic Necessity** The ethical challenges India faces in maintaining a nuclear deterrent are compounded by its aspirations for global nuclear disarmament. India seeks to uphold a moral high ground in nuclear disarmament, yet it continues to rely on nuclear deterrence as a strategic necessity due to the security environment in South Asia. The dilemma lies in how to reconcile these ethical and strategic imperatives, especially as the development of new nuclear technologies presents further challenges to maintaining stability in the region without provoking an arms race.

### CONCLUSION:

India's nuclear policy since 1998 has been shaped by a combination of strategic imperatives, regional security dynamics, and international diplomatic engagements. The Pokhran-II nuclear tests marked a pivotal moment in India's nuclear trajectory, driven by both perceived threats from neighboring nuclear powers—Pakistan and China—and the aspiration to assert strategic autonomy in the global nuclear order. Since then, India's approach has centered on maintaining a balance between deterrence, restraint, and diplomatic engagement.

The adoption of credible minimum deterrence has reinforced India's defensive nuclear posture, deterring adversaries without fueling an arms race. A key pillar of this strategy is the No First Use (NFU) policy, reflecting India's commitment to nuclear restraint and ensuring that its nuclear arsenal remains a deterrent rather than an offensive tool. However, as regional security dynamics evolve, the sustainability of the NFU doctrine has been increasingly debated, particularly in response to Pakistan's development of tactical nuclear weapons and the growing strategic rivalry with China.

On the diplomatic front, India's nuclear strategy has undergone significant transformation. The 2008 Indo-US Civil Nuclear Deal marked a major milestone, granting India access to civilian nuclear technology while allowing it to maintain an independent nuclear weapons program outside the framework of the Nuclear Non-Proliferation Treaty (NPT). While this agreement highlighted India's ability to engage with the global nuclear order on its own terms, it also underscored ongoing dilemmas regarding India's refusal to sign the NPT and the Comprehensive Test Ban Treaty (CTBT), fueling debates on its stance toward non-proliferation and disarmament.

Regionally, India's nuclear posture remains shaped by its complex relationships with Pakistan and China. The nuclear competition with Pakistan continues to pose significant challenges, particularly as both nations enhance their strategic capabilities. Simultaneously, India's deterrent also serves as a counterbalance to China's expanding nuclear and conventional military strength, requiring a careful equilibrium between deterrence and diplomatic engagement. These factors highlight the persistent dilemmas in India's nuclear strategy, as it strives to maintain credible deterrence while preventing escalation and promoting strategic stability in the region.

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