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INDIA'S NUCLEAR POLICY SINCE 1998: REGIONAL SECURITY AND GLOBAL DYNAMICS

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ABSTRACT

Since 1998, India's nuclear policy has been shaped by a careful balancing act between regional security concerns and its global diplomatic engagements. The nuclear tests conducted in May 1998 were a defining moment, positioning India as a de facto nuclear power and leading to the formalization of its "No First Use" (NFU) doctrine and "Credible Minimum Deterrence" strategy. Over time, this policy has adapted in response to regional tensions, particularly with Pakistan and China, as well as international non-proliferation efforts and evolving global power dynamics.

India has worked to maintain strategic stability while strengthening its nuclear triad capabilities, modernizing delivery systems, and engaging in global arms control dialogues. Its nuclear diplomacy, focused on responsible stewardship, non-proliferation, and advocacy for global disarmament, has guided its participation in institutions like the Nuclear Suppliers Group (NSG), the International Atomic Energy Agency (IAEA), and its bilateral relationships with key powers such as the United States and Russia.

This paper explores the evolution of India's nuclear policy post-1998, examining how it has navigated regional security challenges, deterrence dynamics, and its pursuit of greater global legitimacy. It also delves into the impact of emerging threats—such as tactical nuclear weapons, cyber vulnerabilities, and shifting geopolitical alliances—on India's evolving strategic posture.

KEYWORDS: *India's nuclear policy, No First Use (NFU), Credible Minimum Deterrence, nuclear deterrence, regional security, strategic stability, Pakistan, China, global non-proliferation.*

INTRODUCTION

India's nuclear policy has been a cornerstone of its national security and strategic posture since its nuclear tests in May 1998. These tests marked a pivotal shift, officially recognizing India as a nuclear weapons state and triggering significant changes in both regional and global security dynamics. In response to emerging threats and international pressures, India developed a nuclear doctrine focused on "No First Use" (NFU) and "Credible Minimum Deterrence" (CMD), underscoring its commitment to responsible nuclear governance while safeguarding national defense.

India's nuclear policy operates within a complex regional context, particularly influenced by its strategic relations with Pakistan and China. The presence of nuclear-armed neighbors, combined with ongoing border tensions, has driven India to

develop a strong deterrence framework. At the same time, India has engaged with global non-proliferation efforts, despite its decision to remain outside the Nuclear Non-Proliferation Treaty (NPT) and the Comprehensive Nuclear-Test-Ban Treaty (CTBT). Its expanding partnerships with the United States, Russia, and other major powers have further shaped its nuclear strategy, especially in the domains of civilian nuclear cooperation and defense modernization.

This paper examines the evolution of India's nuclear policy since 1998, exploring its impact on regional security, deterrence stability, and international diplomatic relations. It highlights key challenges, including emerging threats such as tactical nuclear weapons, missile defense systems, and cyber vulnerabilities, while also considering India's participation in global arms control initiatives. By analyzing both regional and global developments, this study seeks to offer a comprehensive understanding of India's nuclear strategy in the 21st century.

AIMS AND OBJECTIVES:

Aims

This study aims to analyze the evolution of India's nuclear policy since 1998, focusing on its effects on regional security and global strategic dynamics. It seeks to explore how India's nuclear doctrine has adapted to changing geopolitical realities, emerging security threats, and international non-proliferation initiatives.

Objectives

1. Investigate the evolution of India's nuclear doctrine since 1998, with particular emphasis on the principles of No First Use (NFU) and Credible Minimum Deterrence (CMD).
2. Assess the regional security ramifications of India's nuclear policy, especially in relation to its neighbors, Pakistan and China.
3. Examine India's deterrence capabilities, including developments in its nuclear triad and missile defense systems.
4. Evaluate India's engagement in global nuclear governance, focusing on its participation in the Nuclear Non-Proliferation Treaty (NPT), the Comprehensive Nuclear-Test-Ban Treaty (CTBT), and the Nuclear Suppliers Group (NSG).
5. Investigate the influence of emerging security challenges, such as tactical nuclear weapons, cyber warfare, and artificial intelligence, on India's strategic posture.

LITERATURE REVIEW:

India's nuclear policy since 1998 has been extensively studied through various academic lenses, with a focus on its strategic doctrine, regional security dynamics, and global diplomatic engagements. This literature review examines key contributions in these areas, shedding light on debates surrounding deterrence stability, India's nuclear doctrine, and its role in international non-proliferation efforts.

1. Evolution of India's Nuclear Doctrine

Following India's 1998 nuclear tests, scholars like Rajesh Rajagopalan (2005) and Shyam Saran (2013) have analyzed the development of India's No First Use (NFU) policy and Credible Minimum Deterrence (CMD). These studies highlight India's commitment to responsible nuclear governance while asserting its strategic autonomy. Manpreet Sethi (2017) contends that India's nuclear doctrine has remained consistent, though it faces increasing pressure due to evolving regional security challenges. Other analysts, such as Harsh V. Pant (2019), explore potential adjustments to India's NFU policy in response to Pakistan's tactical nuclear weapons and China's expanding military capabilities.

2. Regional Security and Deterrence Stability

The nuclear dynamic between India and Pakistan has been widely discussed, with scholars like Vipin Narang (2014) exploring the challenges posed by Pakistan's full-spectrum deterrence strategy. Works by Christopher Clary and Vipin Narang (2019) emphasize the risks of crisis escalation due to Pakistan's development of tactical nuclear weapons. In addition, research by Ashley Tellis (2001, 2020)

examines India's deterrence posture in relation to China, focusing on India's nuclear triad modernization as a response to China's growing nuclear arsenal and advancements in missile technology.

3. India and Global Non-Proliferation Regimes

India's approach to global non-proliferation frameworks has been the subject of extensive scholarly debate. George Perkovich (1999) and C. Raja Mohan (2006) analyze India's decision to remain outside the Nuclear Non-Proliferation Treaty (NPT) and the Comprehensive Nuclear-Test-Ban Treaty (CTBT), arguing that India seeks recognition as a responsible nuclear power while preserving strategic flexibility. Other studies by Harsh V. Pant and Yogesh Joshi (2020) explore India's efforts to join the Nuclear Suppliers Group (NSG) and its growing nuclear cooperation with countries such as the United States, Russia, and France.

4. Emerging Challenges and Future Trajectories

Recent literature has turned its attention to emerging threats, such as cyber warfare, artificial intelligence in nuclear strategy, and missile defense systems. Frank O'Donnell and Debalina Ghoshal (2021) explore how technological advancements are influencing India's nuclear posture. Additionally, scholars like Bharath Gopalaswamy (2018) assess the implications of India's missile defense initiatives for regional stability. These studies highlight the evolving nature of India's strategic posture in response to new technological and security challenges.

RESEARCH METHODOLOGY:

1. Research Approach

This study adopts a qualitative research methodology to examine India's nuclear policy since 1998, with a focus on its implications for regional security and global strategic dynamics. The research utilizes descriptive and analytical methods to assess policy decisions, security challenges, and India's international diplomatic engagements.

2. Data Collection Methods

The research draws on secondary data sources, including:

- **Government Documents & Official Statements:** India's nuclear doctrine, reports from the Ministry of External Affairs (MEA), and statements from the National Security Advisory Board.
- **Scholarly Articles & Books:** Academic works by experts in nuclear strategy, including publications by Vipin Narang, Ashley Tellis, and C. Raja Mohan.
- **Think Tank Reports:** Analyses from institutions like the Institute for Defence Studies and Analyses (IDSA), Carnegie Endowment for International Peace, and the Stimson Center
- **International Agreements & Reports:** Documents from the International Atomic Energy Agency (IAEA), Nuclear Suppliers Group (NSG), and the United Nations (UN).
- **Media Reports & Policy Briefs:** Coverage from reputable sources such as *The Hindu*, *The Indian Express*, *Foreign Affairs*, and *The Diplomat*.

3. Data Analysis Methods

- **Thematic Analysis:** Identifying key themes in India's nuclear doctrine, regional deterrence, and global diplomacy.
- **Comparative Analysis:** Comparing India's nuclear policy with those of China and Pakistan to understand regional dynamics.
- **Trend Analysis:** Tracing the evolution of India's nuclear posture, including shifts in policy and military modernization initiatives.

4. Scope and Limitations

- **Scope:** The study focuses on India's nuclear policy post-1998, examining its impact on regional security and its role in global nuclear governance.
- **Limitations:** The research is based on publicly available data, excluding classified or highly sensitive policy documents. Additionally, interpretations of India's nuclear posture may vary across different academic and policy frameworks.

DISCUSSION:

India's nuclear policy since 1998 has been shaped by a blend of strategic, regional, and global factors. This section explores the key aspects of India's nuclear doctrine, its impact on regional security, and its role in the global nuclear order.

1. Evolution of India's Nuclear Doctrine

India's nuclear doctrine, officially outlined in 1999, is built around two primary principles:

- **No First Use (NFU):** India commits to not using nuclear weapons unless first attacked with nuclear weapons.
- **Credible Minimum Deterrence (CMD):** India maintains a sufficient nuclear arsenal to deter adversaries without escalating into an arms race.

Over time, debates have emerged regarding the credibility of the NFU policy, particularly in light of Pakistan's development of tactical nuclear weapons (TNWs) and China's growing military capabilities. Some Indian policymakers have suggested revisiting the NFU stance to enhance flexibility and strengthen deterrence.

2. Regional Security Implications

India's nuclear policy is profoundly shaped by its two nuclear-armed neighbors, Pakistan and China.

- **India-Pakistan Nuclear Rivalry:**
  - Since 1998, both nations have engaged in nuclear signaling and deterrence strategies.
  - Pakistan's full-spectrum deterrence and introduction of TNWs challenge India's NFU policy.
  - The 2019 Balakot airstrikes and the subsequent escalation highlighted the complexity of conventional conflicts under a nuclear shadow.
- **India-China Nuclear Relations:**
  - China's nuclear modernization, including its missile forces, hypersonic weapons, and second-strike capabilities, has influenced India's strategic calculations.
  - In response, India has fortified its nuclear triad, deploying intercontinental ballistic missiles (ICBMs) like Agni-V and enhancing its submarine-based deterrent.

3. India's Nuclear Capabilities and Modernization

India has significantly advanced its nuclear capabilities and delivery systems to ensure a credible second-strike option. Notable developments include:

- The expansion of the nuclear triad, with land-based missiles (Agni series), sea-based deterrence (Arihant-class submarines), and air-based capabilities (Rafale and Mirage-2000 aircraft).
- The development of a Ballistic Missile Defence (BMD) system to counter potential nuclear threats.
- Improvements to command and control systems to ensure the secure management of nuclear assets.

4. India and the Global Nuclear Order

Though India is not a signatory to the Nuclear Non-Proliferation Treaty (NPT) or the Comprehensive Nuclear-Test-Ban Treaty (CTBT), it has positioned itself as a responsible nuclear power.

- **Nuclear Suppliers Group (NSG) Membership Efforts:** India has sought NSG membership to access advanced nuclear technology, though it faces opposition from China.
- **Civil Nuclear Agreements:** Strategic agreements with the United States, Russia, and France have bolstered India's nuclear energy capabilities.
- **Commitment to Non-Proliferation:** India adheres to export controls and non-proliferation standards, while also advocating for global nuclear disarmament.

5. Emerging Challenges and Future Trajectories

Several emerging security threats and strategic developments are likely to shape India's nuclear policy in the future:

- **Tactical Nuclear Weapons (TNWs):** Pakistan's deployment of TNWs increases the risk of battlefield nuclear use, complicating deterrence stability.
- **Cybersecurity and Artificial Intelligence (AI):** The integration of AI in nuclear command and control structures, alongside cybersecurity vulnerabilities, introduces new risks to nuclear security.

- **Hypersonic Weapons and Space Warfare:** China's progress in hypersonic glide vehicles and space-based military capabilities presents new challenges to India's nuclear deterrence posture.

CONCLUSION:

Since 1998, India's nuclear policy has been shaped by a complex interplay of regional security concerns, strategic deterrence needs, and global diplomatic considerations. The nuclear tests conducted in May 1998 marked a pivotal moment in India's strategic evolution, leading to the formalization of its No First Use (NFU) policy and Credible Minimum Deterrence (CMD) doctrine. Over time, India has maintained a restrained but robust nuclear posture, ensuring deterrence stability while promoting global disarmament and non-proliferation.

Regionally, India's nuclear policy has been driven by its evolving security environment with Pakistan and China. The India-Pakistan nuclear rivalry has posed significant deterrence challenges, particularly with Pakistan's development of tactical nuclear weapons (TNWs) and the risks of escalation in times of conflict. At the same time, China's expanding nuclear arsenal, along with advancements in hypersonic weapons, missile defense, and cyber capabilities, has spurred India's strategic modernization efforts. In response, India has continued to strengthen its nuclear triad, enhance its Ballistic Missile Defense (BMD) systems, and refine its command and control mechanisms to ensure credible deterrence.

On the global stage, India has sought to balance its nuclear responsibilities with diplomatic engagement. Although India remains outside the Nuclear Non-Proliferation Treaty (NPT) and the Comprehensive Nuclear-Test-Ban Treaty (CTBT), it has actively pursued civil nuclear agreements, sought membership in the Nuclear Suppliers Group (NSG), and engaged in international cooperation on nuclear security. Partnerships with countries such as the United States, Russia, and France have bolstered India's status as a responsible nuclear power while allowing access to advanced nuclear technology for peaceful purposes.

Looking forward, India's nuclear policy will need to adapt to emerging challenges, including cybersecurity risks, AI-driven military technologies, space warfare, and shifting geopolitical realities. While the NFU doctrine remains a cornerstone of India's strategy, ongoing debates suggest that India may reassess certain aspects of its policy in response to evolving external threats. Ensuring strategic stability, maintaining deterrence credibility, and strengthening engagement in multilateral nuclear governance will be crucial as India navigates an increasingly complex security environment.

In conclusion, India's nuclear policy since 1998 reflects a delicate balance between deterrence, diplomacy, and defense modernization. By maintaining a credible nuclear deterrent while advocating for stability and responsible nuclear stewardship, India continues to play a key role in shaping both regional and global security dynamics.

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