INDIA'S NUCLEAR POLICY: AN APPRAISAL OF PRINCIPLES, EVOLUTION AND RATIONALE

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Abstract: India's nuclear policy is a set of principles and guidelines that govern the country's approach to nuclear weapons, non-proliferation, and the peaceful use of nuclear energy. Shaped by its security concerns, regional dynamics, and energy needs, India's nuclear policy is characterized by several key elements like the doctrine of no-first-use or credible minimum deterrence. Additionally, India emphasizes the peaceful use of nuclear energy. It seeks to harness nuclear technology for civilian purposes, including electricity generation, medicine, agriculture, and industry. India's nuclear policy also emphasizes strategic autonomy, maintaining its independence and not aligning with any nuclear weapon state or nuclear block. It aims to pursue its national security interests based on its own assessments and engage in strategic partnerships on its terms. Furthermore, India has implemented export controls and safeguards to prevent the proliferation of nuclear technology and materials. It prioritizes strict measures to ensure non-proliferation and prevent the misuse of nuclear technology. Overall, India's nuclear policy reflects its efforts to balance security imperatives, energy needs, and global non-proliferation objectives. It seeks to maintain a credible deterrent, promote peaceful uses of nuclear technology, and actively engage in disarmament initiatives while safeguarding national sovereignty and strategic autonomy.

Key words: Nuclear policy, Deterrence, Security, Neighbors, Non-proliferation.

Introduction

The nuclear policy of India is based on the principles of 'No First Use' and 'Credible Minimum Deterrence' and its nuclear program dates back to 1944. It was then the pioneer Homi J. Bhabha visualized a dedicated research center on nuclear power and eventually came the Institute of Fundamental Research in 1945, inside the IISc-Bangalore campus and with the patronage of JRD Tata. India conducted its first nuclear test in 1974, followed by five more tests in 1998. India has also developed a nuclear triad capability, which means it can deliver nuclear weapons by land, air and sea. India's nuclear policy aims to use nuclear energy for peaceful purposes and to ensure national security.[i]

India is not a signatory to the Non-Proliferation Treaty, though it supports global nuclear disarmament and non-proliferation efforts. India has presented two resolutions in the UN General Assembly on these issues, one in 1982 on prohibition of nuclear weapons and the other in 1998 on reducing the nuclear danger, and consistently campaigned for complete ban of nuclear weapons.[ii] India has also participated in various multilateral initiatives, such as the Nuclear Security Summit, the Comprehensive Nuclear Test Ban Treaty and the Missile Technology Control Regime.

Principles of India's Nuclear Policy

India's nuclear policy is a complex framework that guides its approach towards nuclear weapons and energy. It is shaped by various factors such as national security concerns, regional dynamics, and global nuclear politics. The following principles are indicative of India's nuclear policy:

No First Use (NFU) Doctrine: India's nuclear policy is centered around its commitment to a 'No First Use' doctrine. This means that India pledges not to be the first to use nuclear weapons in any conflict, emphasizing their role solely as a deterrent.

Minimum Credible Deterrence: India's nuclear policy is based on the concept of 'Minimum Credible Deterrence'. It aims to maintain a nuclear arsenal that is sufficient to deter potential adversaries from launching a nuclear attack against India.

Non-Proliferation and Disarmament: India has consistently advocated for global nuclear disarmament and non-proliferation efforts. It emphasizes the need for a comprehensive and time-bound nuclear disarmament process and has called for a legally binding universal nuclear disarmament treaty.

Nuclear Energy and Technology: India has a robust civilian nuclear energy program. It seeks to develop nuclear power for peaceful purposes, including electricity generation, medical and industrial applications, and scientific research. India has engaged in international nuclear cooperation, including nuclear energy collaborations and civilian nuclear technology exchanges.

International Relations and Treaties: India is not a signatory to the Non-Proliferation Treaty of Nuclear Weapons (NPT) as it considers the treaty discriminatory, favoring the nuclear weapon states. However, India has engaged with various international forums and initiatives, such as the International Atomic Energy Agency (IAEA) and the Nuclear Suppliers Group (NSG), to foster cooperation and address nuclear concerns.

Strategic Autonomy: India's nuclear policy underscores its commitment to maintaining strategic autonomy in decision-making regarding its nuclear capabilities. It emphasizes that India's nuclear choices are guided by its own national security interests and are not subject to external pressures or influences.

It's important to note that India's nuclear policy is subject to evolving circumstances and may be shaped by changing regional dynamics and global developments in nuclear affairs.[iii]

Regional security dynamics for India

India's regional security dynamics are influenced by various factors, including its geopolitical position, neighboring countries, historical conflicts, and regional power calculus. India shares land borders with several countries, including Pakistan, China, Nepal, Bhutan, Bangladesh, and Myanmar. The relationships with these neighboring countries have significant implications for India's regional security. Tensions and conflicts with Pakistan and China, in particular, have shaped India's security posture and defense strategies. The long-standing dispute over the region of Jammu and Kashmir between India and Pakistan has been a major source of regional instability. It has led to military confrontations, cross-border terrorism, and periodic escalations between the two countries. The rise of China as a global power and its assertive behavior in the region has significant implications for India's security. India and China share a very long border and have ongoing territorial disputes, most notably the boundary issue in the Himalayan region of Ladakh and Arunachal Pradesh. India faces security challenges from various terrorist groups operating within and across its borders. Groups such as Lashkar-e-Taiba (LeT) and Jaish-e-Mohammed (JeM) have been involved in attacks in India, including in the disputed region of Kashmir. The development in Afghanistan has also spillover effect in Indian security architecture. The presence of nuclear-armed neighbors, Pakistan and China, adds another layer of complexity to this regional security dynamics. Nuclear deterrence, arms race concerns, and crisis stability form part of India's strategic calculations. Therefore, India's regional security dynamics are multidimensional and constantly evolving, driven by a combination of historical, geopolitical, and strategic factors. India seeks to maintain a balance between assertive and defensive postures; and promotes regional cooperation, and peaceful resolution of disputes to ensure its national security as well as stability in the region.[iv]

Here it is pertinent to discuss China and Pakistan a little more in details with regard to India's security concerns. In fact, China has remained a constant threat to Indian territoriality and integrity from the end of 1950s and especially after 1962 border war; whereas Pakistan can be best described a serious nuisance causing periodic disruptions.

China

China poses several possible threats to India, some of which include border disputes, strategic encirclement, support to Pakistan and so on. The longstanding border disputes between China and India, particularly along the Line of Actual Control (LAC), continue to be a major source of tension. These disputes have led to occasional military standoffs and skirmishes, creating the potential for escalation and large scale conflict. China's growing influence in India's neighboring countries, particularly through its Belt and Road Initiative (BRI), has raised concerns in New Delhi. It looks like China is envisaging circling of India by both land and sea. By developing infrastructure projects and building closer ties with neighboring nations, China could potentially isolate India diplomatically and economically; or at least challenge India's pivotal position in South Asia. China's significant military modernization efforts, including the development of advanced weaponry, naval capabilities, and space technologies, can alter the regional balance of power and pose a direct threat to India's security. Its assistance to Pakistan in areas such as defense technology, infrastructure expansion, and diplomatic support directly impacts India's security interests. It makes India forced to be prepared to fight a future war in two theatres simultaneously with these northern and western neighbors and this has a huge cost factor. At the same time, China's rapid economic growth and expanding influence in the global market have created competition for India. China's dominance in manufacturing sector and its ability to offer low-cost goods can undermine Indian industries and affect the Indian economy.[v]

Pakistan

Pakistan and India have a complex relationship with ongoing tensions and issues. Conflicts and disputes between the two countries, especially territorial disputes in Kashmir, have caused challenges, and strained relations. Other than this dispute over Kashmir, there are other issues as well, like water sharing of the Indus and its tributaries which originates from India and then flows into Pakistan. The role Islamabad has historically played and is still playing in Afghanistan is also detrimental to Indian interests. So are its continuously growing ties with Beijing; the China Pakistan Economic Corridor (CPEC) represents one such friction point. However, it's important to note that the situation is multifaceted, and both countries have taken steps towards dialogue and engagement at various times. There were some short spells of relative peace and tranquility as well, especially when Islamabad had a civilian government.

Since 1947, Pakistan has been involved in several wars and conflicts with India over the disputed territory of Kashmir, and has supported militant groups that have carried out terrorist attacks on Indian soil. Pakistan has also developed nuclear weapons and delivery systems that could potentially target major Indian cities and military installations. Pakistan's nuclear doctrine is based on the concept of *'first use'*, meaning that it would not hesitate to use nuclear weapons in response to a conventional attack by India. Pakistan's nuclear arsenal is estimated to be between 150 and 200 warheads, while India's is around 150. Pakistan's nuclear weapons are under the control of the army, which has a history of coups and instability.[vi] There is also a risk of nuclear theft or sabotage by extremist elements within Pakistan or from outside. On the contrary, India's nuclear command and control structure is under the civilian authority of the prime minister, who has the sole authority to signal a nuclear strike.[vii] India and Pakistan have signed several agreements and confidence-building measures to reduce the risk of a nuclear war, such as the Lahore Declaration of 1999, the Agreement on Pre-Notification of Flight Testing of Ballistic Missiles of 2005, and the Agreement on Reducing the Risk from Accidents Relating to Nuclear Weapons of 2007. However, these agreements have not been fully implemented or respected by either of the sides.

There have been several incidents of ceasefire violations, cross-border firing, and military escalation along the Line of Control that separates the two countries in Kashmir. Pakistan also plays the role of some kind of incubation center and launch pad of terrorism in India. These incidents primarily revolve around the involvement of Pakistan-based militant groups, such as Lashkar-e-Taiba (LeT) and Jaish-e-Mohammed (JeM), in carrying out attacks on Indian soil. One of the bloodiest examples is the 2008 Mumbai attacks, where LeT militants from Pakistan launched a series of coordinated attacks in Mumbai, resulting in numerous casualties. The Indian government and intelligence agencies have asserted that the attackers received training and support from Pakistan. India has also accused Pakistan of supporting various insurgent groups in the Indian state of Jammu and Kashmir. These groups have been responsible for numerous acts of violence, including attacks on security forces and civilian targets. Islamabad also patronizes, whenever possible, rebellious groups in other parts of India too, like Khalistani elements in Punjab.

It is in this context of regional security dynamics that we need to put India's nuclear policy to see it in perspective.

Nuclear tests conducted by India
1974

India's first successful nuclear bomb test was conducted on 18 May 1974 at Pokhran Test Range in Rajasthan. The operation was codenamed *'Smiling Buddha'* or *'Operation Happy Krishna'* by the Indian Ministry of External Affairs (MEA).[viii] The test was a result of India's nuclear program that started in 1944 under the leadership of physicist Homi Bhabha. The device was an implosion-type fission bomb with a yield of 8-10 kilotons of TNT. The test made India the sixth country in the world to possess nuclear weapons, after the US, Soviet Union, Britain, France and China. The test was carried out under the supervision of several key Indian scientists and generals, such as Raja Ramanna, P.K. Iyengar, R. Chidambaram, N.S. Venkatesan, W.D. Patwardhan, Homi Sethna and APJ Abdul Kalam. The test was kept secret from the international community and even some members of the Indian cabinet until it was announced by Prime Minister Indira Gandhi. The test was officially described as a 'peaceful nuclear explosion' for civilian purposes, such as mining and earthmoving. However, the test also had strategic implications for India's security and foreign policy, especially in the context of its relations with China and Pakistan.[ix]

1998

'Shakti 98' refers to India's nuclear tests conducted in May 1998. These tests were codenamed *'Operation Shakti'* and involved a series of underground nuclear detonations conducted by India at the same Pokhran test range in Rajasthan. The tests marked a significant development in India's nuclear capabilities and sparked international discussions and concerns about nuclear proliferation. The tests were met with strong international condemnation, particularly from countries advocating nuclear non-proliferation. Several nations, including the United States, imposed economic and

technological sanctions on India.[x] Pakistan, India's neighboring country and rival, conducted its own series of nuclear tests in response to India's actions. This led to increased tensions between the two countries and raised concerns about nuclear escalation in the region. The tests almost triggered a nuclear arms race between India and Pakistan, as both countries accelerated their efforts to develop and expand their nuclear weapon capabilities. This raised the stakes and security concerns in the South Asian region. The tests had a significant impact on global geopolitics too. India's decision to conduct nuclear tests challenged the existing global nuclear order and prompted discussions on nuclear disarmament and non-proliferation. Overall, the tests had far-reaching consequences, reshaping regional security dynamics, altering international relations, and highlighting the complexities around nuclear weapons and disarmament efforts.[xi]

India and international nuclear regimes

India and NPT

India is one of the few countries that has not signed the Treaty on the Non-Proliferation of Nuclear Weapons (NPT-1968), which aims to prevent the spread of nuclear weapons and promote peaceful uses of nuclear energy. India's position on the NPT is based on several factors, such as its security concerns, its historical experience with nuclear weapons, its commitment to global disarmament, and its desire to maintain its strategic autonomy. India argues that the NPT is discriminatory and unfair, as it divides the world into nuclear-weapon states and non-nuclear-weapon states, without addressing the root causes of nuclear proliferation and the need for a comprehensive and universal disarmament regime. India also contends that the NPT does not recognize its legitimate right to nuclear deterrence, given the nuclear threats it faces from its neighbors. India maintains that it has a responsible and credible nuclear doctrine, based on the principles of no first use, minimum credible deterrence, and civilian control. India also asserts that it has never violated any international treaty or obligation regarding nuclear weapons, and that it has contributed to global non-proliferation efforts by adhering to strict export controls and safeguards. India believes that it should be treated as a de facto nuclear-weapon state, and that it should be granted full access to civil nuclear cooperation and technology without any discrimination or conditions.[xii]

India and CTBT

The Comprehensive Nuclear Test Ban Treaty (CTBT-1996) is a multilateral agreement that prohibits any nuclear explosion, whether for military or peaceful purposes, in any environment. The treaty was adopted by the United Nations General Assembly in 1996, but has not yet entered into force, as eight of the 44 countries that must ratify it have not done so. India is one of these countries, along with China, North Korea, Pakistan, Iran, Israel, Egypt and the United States.

India's position on the CTBT has been consistent and principled, based on its commitment to nuclear disarmament and global security. India was an active participant in the negotiations of the treaty, but did not sign it because it considered it to be discriminatory and flawed. India argued that the treaty did not address causes of nuclear proliferation, like its predecessor NPT, which is the existence of nuclear weapons and the lack of a time-bound framework for their elimination. India also expressed concerns about the verification regime of the treaty, which it viewed as intrusive and unequal.[xiii]

India has maintained a voluntary moratorium on nuclear testing since 1998, when it conducted its second series of nuclear tests after 1974. It has stated that it is willing to consider joining the CTBT if it is part of a universal, non-discriminatory and verifiable nuclear disarmament process that involves all nuclear-weapon states. India has also called for a global convention on the prohibition of nuclear weapons as the ultimate goal.[xiv]

Indo-US Nuclear Deal 2008

In 2008, the United States and India signed the U.S.-India Civil Nuclear Agreement, also known as the *'123 Agreement'*. This agreement allowed for civilian nuclear cooperation between the two countries and granted India access to civilian nuclear technology and fuel. It marked a significant shift in U.S. policy towards India's nuclear program, as India was previously subjected to nuclear-related sanctions due to its nuclear weapons program.

The U.S.-India Civil Nuclear Agreement was seen as a landmark deal and was aimed at promoting civilian nuclear energy in India while ensuring non-proliferation of nuclear weapons. It required India to separate its civilian and military nuclear facilities and place its civilian facilities under International Atomic Energy Agency (IAEA) safeguards. This deal essentially marked an end to India's nuclear isolation.[xv] Following this, in 2008, the NSG (Nuclear Suppliers' Group) granted a waiver to India, allowing it to engage in nuclear trade with other countries, even though India was not a signatory to the NPT. This exemption opened the door for India to engage in nuclear commerce and collaborate with other countries in the field of nuclear energy. India and the United States have also collaborated on defense and strategic aspects related to nuclear technology; which includes information sharing, cooperation on nuclear security, and participation in multilateral forums such as the Nuclear Security Summit.[xvi]

Critique of India's nuclear policy

India's nuclear policy has been a subject of debate and criticism, and there are some perceived drawbacks associated with it. Here are a few commonly discussed drawbacks:

1. *Non-Proliferation Concerns:* India is not a signatory to the Nuclear Non-Proliferation Treaty (NPT), which aims to prevent the spread of nuclear weapons. As a result, some argue that India's nuclear policy undermines global non-proliferation efforts and sends a message that non-compliance with the NPT can be acceptable.

2. *Arms Race and Regional Security:* India's nuclear weapons program, coupled with its regional rivalries and conflicts, has raised concerns about an arms race and destabilization in South Asia. The nuclear capabilities of India and neighboring Pakistan have contributed to heightened tensions and the risk of a nuclear conflict.

3. *Resource Allocation:* Critics argue that India's focus on nuclear weapons and nuclear energy diverts resources and attention from other pressing developmental needs, such as poverty alleviation, education, healthcare, and infrastructure. The significant financial and technological investments required for a nuclear program can limit resources available for other critical areas.

4. *Safety and Security Risks:* Operating nuclear power plants and maintaining a nuclear arsenal come with inherent safety and security risks. These risks include the potential for accidents, nuclear material theft or sabotage, and the challenges of ensuring robust safety standards and non-proliferation controls.

5. *Environmental Concerns:* Nuclear power, while considered a low-carbon energy source, presents challenges related to the safe disposal of radioactive waste. Managing and storing nuclear waste over the long term can pose environmental and health risks if not handled properly.

It's worth noting that these drawbacks are subject to varying perspectives and that India's nuclear policy is shaped by its unique geopolitical and security considerations. Additionally, India has taken steps to address concerns related to safety, security, and non-proliferation, including its commitment to maintaining a minimal arsenal for deterrence posture and implementing stringent export controls.[xvii]

Evaluation of India's nuclear policy

One of the key objectives of India's nuclear policy is to maintain a credible minimum deterrence posture. India's nuclear weapons program is seen as a means to deter potential adversaries and ensure national security. By possessing a nuclear arsenal, India aims to dissuade other nuclear-armed countries from engaging in aggression. This can be seen as a pragmatic response to regional security challenges. India's nuclear policy also emphasizes the development of nuclear energy as a source of electricity generation. Nuclear power is considered a cleaner alternative to fossil fuels and can help meet India's growing energy demands. By pursuing nuclear energy, India seeks to reduce its dependence on traditional energy sources and improve energy security.

Although India is not a signatory to the NPT, it has demonstrated a commitment to non-proliferation and nuclear security. India maintains a voluntary moratorium on nuclear testing and has participated in various international non-proliferation initiatives. It has also established export control mechanisms to prevent the unauthorized transfer of nuclear technology or materials. India has consistently advocated for global nuclear disarmament and has called for a comprehensive nuclear weapons ban convention. It has expressed its commitment to global peace and security and has supported initiatives to reduce nuclear stockpiles. India's nuclear policy also endorses a no-first-use doctrine, which states that it will only use nuclear weapons in response to a nuclear attack, thus making it a responsible nuclear power.

India's nuclear policy reflects its strategic imperatives, energy needs, and national security concerns. While it seeks to maintain deterrence and promote peaceful use of nuclear energy, there are valid concerns regarding arms race risks, resource allocation, and safety and security challenges. Continued dialogue, engagement with international non-proliferation efforts, and responsible nuclear stewardship will be crucial for addressing these concerns and ensuring regional and global stability.[xviii]

Conclusion

The question of whether India needs nuclear weapons is a subject of debate and controversy. Supporters of India's nuclear program argue that it is necessary for national security and to maintain a balance of power in the region. Critics argue that it is a destabilizing force that could lead to an arms race in South Asia and that it is not necessary for India's security. The possession of nuclear weapons is seen as a deterrent against potential adversaries, but there are also concerns that the possession of nuclear weapons could increase the risk of nuclear war and could lead to accidents or nuclear terrorism. Despite these concerns, India has continued to pursue its nuclear program and has sought to establish itself as a major player in the global nuclear order.

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