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India and nuclear weapons

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> India is a nuclear weapon state […] It is not a conferment that we seek; nor is it a status for others to grant. It is an endowment to the nation by our scientists and engineers. It is India's due, the right of one-sixth of humankind. Our strengthened capability adds to our sense of responsibility; the responsibility and obligation of power.[1]
>
> (Atal Bihari Vajpayee)

Introduction

This chapter traces the role that nuclear weapons have played within India's international relations from her independence in 1947 to her emergence as a future Great Power at the beginning of the 21st century. During this period, nuclear weapons and nuclear technology became critical touchstones for India's leaders and policy-makers, serving as powerful emblems of the country's independence, its technological proficiency and gradual modernization. In terms of international relations, nuclear power is regarded as a tool with which India can achieve strategic autonomy, and provide self-sufficiency in her diplomatic, political and economic affairs. As India's first Prime Minister, Jawaharlal Nehru pondered 'what does independence consist of? – it consists fundamentally and basically of foreign relations'.[2] Nuclear power helps enable this vision of independence and encompassed Nehruvian principles of non-violence, non-alignment, peace, disarmament, self-reliance and development. In turn, nuclear weapons were a means with which to protect Indian territory from external forces, to secure her regional preeminence and to stake her claim to future influence in the international system.

While reflective of the aspirations and beliefs of her leaders, India's domestic and foreign policy concerning nuclear weapons came to be based upon a paradox centred on the concurrent 'pursuit of independence and a commitment to peace'.[3] Thus, on one hand the acquisition of nuclear technology could help alleviate the country's energy needs, sustain its economic development and provide (through nuclear weapons) an effective deterrent against the negative intentions of its neighbours and others. On the other hand, however, India's leaders remained resolutely pro-nuclear disarmament, arguing that the existence of *any* nuclear weapons threatened India's security and that of the world. These latter views reflected both the

idealism and morality of Nehru and, in the early years of the Cold War, the aims of being non-alignment from either of the two superpowers. This paradox became manifested in Indian foreign policy through a strategic-scientific enclave that simultaneously pursued a dual approach of developing nuclear weapons *and* calling for global disarmament.

The chapter is split into three major sections. In the first section, I investigate the roots of India's nuclear programme post-independence until the late 1960s, and show how India's leaders pursued the dual track policy of development (including weaponization) and disarmament. In turn, section two analyses how from the early 1970s to the late 1990s India continued to use this approach to try to relieve external diplomatic, economic and diplomatic pressures towards her from the USA, People's Republic of China and Pakistan. The third section then deals with the nuclear tests of 1998 and their aftermath, in particular India's increased international leverage but also the continuing paradox of maintaining her opposition to nuclear weapons while developing them. The chapter ends with some thoughts as to the continued role and importance of nuclear weapons (and nuclear technology) in defining the current and future trajectory of India's international relations.

Nuclear beginnings and the early Cold War

India's aspirations for a nuclear programme began before independence and were then consecrated through the creation of the Indian Atomic Energy Commission in 1948. Combining work at the Tata Institute of Fundamental Research (itself set up in 1945), Homi Bhabha was the founding chair of the Atomic Energy Commission and guided India's nascent nuclear development. In turn, and complementing his role as India's first Prime Minister and defence minister, Jawaharlal Nehru held responsibility for the Department of Atomic Energy (DAE) that had been created in August 1954. This had few, if any, institutional checks or balances and was open to little military influence, reflecting its technological rather than militaristic orientation.[4] The DAE would remain under the direct control of subsequent Indian prime ministers. Economic advancement initially drove India's nuclear considerations, which were simultaneously aimed at overcoming decades of colonial exploitation, developing India's technical infrastructure and garnering international prestige through a display of scientific prowess. As funding significantly rose in the earlier 1950s, India's leaders increasingly saw nuclear science as a way to ameliorate India's post-independence position and to signal her international resurgence.[5]

While India's nuclear programme helped to nurture India's industrial base through the skill of her physicists and mathematicians, it was also multi-faceted through its focus on the multiple uses of nuclear energy. Initially, the peaceful non-military uses of nuclear energy were prominent and mixed with the wider goal of universal nuclear disarmament. This approach confirmed a focus on India's economic development that eschewed military spending and an avoidance of the two superpower blocs, as manifested through India's leadership of the Non-Aligned Movement (NAM). Principles of *ahimsa* (non-violence) and *satyagraha* (truth-force—the doctrine used to describe non-violence) further supported the aim of achieving peaceful development. In turn, a world free of nuclear weapons would help to reduce the risk of existential nuclear conflict, protect South Asia from external influences, and enhance Indian security. Maintaining India's independence underpinned these notions through a 'refusal to accept any external controls and restraints instituted in a discriminatory way',[6] and a commitment to peaceful, non-military uses of nuclear technology.

India's nuclear development came to be described in terms of self-reliance and self-sufficiency, manifestations that called for the country's autonomy to be protected in all spheres. Whilst this autonomy primarily concerned civilian needs, awareness that nuclear weapons could

be used for defence and deterrent also became noted within India's early international relations. Indeed, as India-China relations began to deteriorate in the late 1950s a consensus developed among India's leaders that nuclear weapons could and should be developed if a commensurate nuclear threat from China was apparent.[7] Such threat perceptions would inculcate more military uses of India's nuclear potential and bolster her nascent independence. They also reflected the view that, from the very beginning, many of India's scientists and leaders knew that nuclear technology 'would bring nuclear weapons'.[8] This outlook then coupled with tensions between a moral antagonism towards nuclear weapons (including demands for disarmament) and a desire to be a Great Power. A nuclear capability often came to personify the latter, particularly in terms of avoiding any international isolation and also by creating a bargaining chip that challenged the hold on atomic technology by the veto-wielding P-5 (the USA, USSR, United Kingdom, France and China) Permanent Members of the UN Security Council (UNSC).

In the early Cold War period, however, India's focus remained more on technological advancement in terms of nuclear energy and associated economic benefits rather than with developing a nuclear arsenal. Thus, from 1955 onwards nuclear co-operation between India and several other governments (Canada, the USA, the United Kingdom and France) was established. These links led to the building of the APSARA research (light water) reactor in 1956, the first research reactor of its kind in Asia, and to the building of the CIRUS research (heavy water) reactor in 1960. By 1962 Indian scientists had begun producing their own heavy water and in 1965 they separated plutonium for the first time.[9] All these accomplishments represented key steps in the realization of India's nuclear energy industry, but also had possible dual usages, especially the manufacture of weapons grade plutonium. In turn, in April 1954 in the Indian parliament Nehru had called for the prohibition and elimination of nuclear weapons, as well as a halt to all nuclear testing. These calls came in an era when nuclear tests were being held above ground and eventually contributed to the Partial Test Ban Treaty of 1963 whereby atmospheric testing was banned (although France carried out such tests until 1974 and China until 1980). The ban led to the ascendancy of underground testing.

By the beginning of the 1960s, several states—other than the USA, which had used nuclear weaponry in 1945 against Japan at Hiroshima and Nagasaki—had proven nuclear capabilities. These states were the USSR (which first tested in 1949), the United Kingdom (which first tested in 1952), and France (which first tested in 1960). Thus, four of the five powers with permanent vetoes on the UNSC, the P-5 powers, had nuclear weapons in their arsenals. After India was heavily defeated in the 1962 war with China, another dimension emerged concerning the research side of India's nuclear programme—that of developing India's 'nuclear option'. The nuclear option meant undertaking research towards the development and production of nuclear weapons and associated technology (such as missiles, bombs and triggering devices) for possible future use. Such an option would only be realized if and when India's security was under direct threat from another nuclear weapons-ready state, and was regarded as a pragmatic policy.[10] An underlying aspiration to become a Great Power state additionally heightened the sense among India's elite that having nuclear weapons equated to being a Great Power like the P-5 states. Having nuclear weapons would also thwart the need for any security guarantees from any external (nuclear) powers, thus allowing India heightened strategic autonomy.

China's nuclear tests at Lop Nor on 16 October 1964 confirmed India's perceived threat, and added credence to the notion that nuclear weapons were force equalizers that overcame military asymmetries between states. In addition, nuclear weapons became seen as a shortcut to a modernized defence force that would exponentially improve India's security. After Indian leaders failed to illicit nuclear guarantees from the USA and the USSR (whereby India could be protected with their nuclear capabilities), pressure grew for India's nuclear option to be realized and

in 1964 Indian Prime Minister Lal Bahadur Shastri launched a programme to reduce the time in which India could be weapons capable to six months.[11] Chinese threats of opening a second front during the 1965 India–Pakistan war reinforced this necessity, as did the emergence of close China-Pakistan ties aimed at limiting India's regional influence.[12] Post-1964 the nuclear debate in India thus became dominated by the threat posed by China, the cost of nuclear weaponization and the morality of having such weapons.[13]

At the same time, India's leaders continued to call for a complete ban on nuclear testing and began campaigning in 1965 for a universal non-proliferation treaty. Such a treaty would be based upon those states with nuclear arsenals giving them up in order to inspire 'would-be nuclear' states not to attempt development. Within the international community at large and the P-5 powers, China's 1964 tests had also underlined the need to prevent further proliferation. The resultant Nuclear Non-Proliferation Treaty (NPT) was signed on 1 July 1968 by the United Kingdom, the USA and the USSR, and came into force on 5 May 1970. However, rather than fulfilling India's aims of banning all nuclear weapons, the NPT split the world into Nuclear Weapons States (NWS)—defined as those that had tested prior to 1 January 1967 and who could keep their weapons—and Non-Nuclear Weapons States (NNWS)—which were banned from ever possessing or developing nuclear weapons. The terms of the NPT were then to be reviewed every five years from 1970 onwards. Opposed to a treaty that did not provide 'equal and legitimate security'[14] for all states, and in order to keep the nuclear option open, India refused to sign the NPT. As such, India's leaders maintained the policy that, 'unless everyone closes the nuclear door, it is not in India's interests to do so.'[15] The NPT also increased Indian distrust of the international community, as it threatened India's autonomy, development and long-term power aims.

From Pokhran I to the 1990s: India's nuclear option emerges

By the early 1970s the ambiguity of the 'nuclear option' had effectively merged India's anti-nuclear and pro-nuclear opinions whereby a nuclear bomb would be developed but not used. This ambiguity ensured that India's weaponization programme continued but simultaneously reassured those in India's elite who both wanted a nuclear weapons capability (the hawks) and those that did not (the doves). At the same time, moral arguments as to the legitimacy of having nuclear weapons had become supplanted, courtesy of the NPT, by arguments more concerned with the nuclear 'haves' and 'have-nots'. These arguments appeared to cast India as a second-rate power, and nuclear bombs increasingly came to symbolize the national power, strength and development that India's leaders craved. India's refusal to declare South Asia a nuclear weapons-free zone, as proposed by the USA, underscored these aspirations and India's policy direction.[16]

In turn, although India had fought a successful conflict with Pakistan in 1971 (which led to the creation of Bangladesh), and had signed the 20-year Treaty of Peace, Friendship and Cooperation with the USSR, India's regional security environment was deteriorating. This deterioration was typified by the US tilt to Pakistan in the 1971 war (during which the USA sent ships into the Bay of Bengal), by deepening China-Pakistan ties and, most critically, by the US-China rapprochement under Richard Nixon and Mao Tse Tung from 1972. These relations effectively created a China-Pakistan-USA united front against India and were strengthened by China's regional nuclear monopoly. Such factors combined with a variety of domestic pressures,[17] and India's Prime Minister Indira Gandhi (the daughter of Nehru) decided to carry out a nuclear test to demonstrate India's capability. With a sufficiently developed nuclear programme at hand and under the codename 'Smiling Buddha', India undertook her first nuclear test on 18 May 1974—a test described as a Peaceful Nuclear Explosion (PNE). This description

copied other PNEs by the USA and the USSR (so denoted as they were for ostensibly non-military purposes, such as economic development), but was widely classified by both Indian and external observers as a weapons test. The test also became known as Pokhran I, named after the site where the test took place in the Thar Desert in Rajasthan.

At the time there was a sense that the PNE 'impart to Indians a sense of security and self-confidence',[18] and was emblematic of India's criticism of the P-5 powers and the NPT. While France congratulated India on her successful tests, and the USSR and China were more muted yet critical in their responses, the USA and Canada removed all nuclear ties and assistance. In turn, the USA introduced sanctions on all its economic and military aid to India. The severity of this response came from India's open challenge to the P-5's anti-proliferation regime, but also that US (and Canadian) reactors had been used to help produce the fissile material used in the PNE. As a non-signatory of the NPT, India was also not under International Atomic Energy Agency (IAEA) safeguards—a factor that increased international anger. Furthermore (and enhancing Indian perceptions of an international conspiracy against it), the PNE led to the creation of the London Suppliers Group (later renamed the Nuclear Suppliers Group—NSG). This group aimed to control the export and transfer of materials that could be used to produce nuclear weapons. It thus prevented India from gaining assistance with its nuclear programme (including nuclear reactors, components, international scientific contacts and exchanges), but also emboldened Indian self-sufficiency and nuclear autonomy by further accentuating the gap between India's aspirations and her actual place in the world.

Also of influence on India's decision to test in 1974 was Pakistan's nuclear programme. In the 1950s and early 1960s this programme had initially mirrored India's with an Atomic Energy Commission established in 1956 and little consideration given to the military uses of atomic energy. By the mid-1960s, however, this approach changed as Pakistan's leaders argued that parity had to be achieved with India, particularly after Pakistan's defeat in the 1965 war. Pakistani policy-makers also became concerned with the state's lack of 'strategic depth' (commonly defined as the distance between her borders and major cities/core industrial areas). This issue was amplified by the loss in 1971 of the eastern part of her territory (which then formed the newly independent Bangladesh). The 1971 war thus led to strategic asymmetries between Pakistan and India, and led Pakistan's leaders to urge the weaponization of the state's nuclear capabilities from 1972 onwards. In turn, India's 1974 PNE 'increased, Pakistan's nuclear resolve'.[19] The multiple crises between India and Pakistan in the 1980s and 1990s increasingly came to include a consideration of any possible nuclear dimension, especially after the outbreak of insurgency in Kashmir from 1989.[20]

With the USSR's invasion of Afghanistan in 1979, the importance of the US-Pakistan relationship was reaffirmed. Keen to prevent a Soviet success in Afghanistan, the USA vastly increased the amount of its aid to Pakistan, amounting to US $400m. in 1979 and $3,200m. over the six years from 1981 to 1987.[21] While some of this aid could be used to develop Pakistan's nuclear weapons programme, these concerns did not surmount the USA's primary geopolitical aim of lending as much support as possible to various *mujahideen* resistance groups in Afghanistan. The US focus on (and need for) Pakistan further undermined India's position as she became ranked behind Pakistan and China in US calculations concerning South Asia, despite the events of 1971 and 1974. Under these conditions and combined with its previous research, Pakistan was 'nuclear weapons capable' by the mid 1980s—a success aided by the work of Abdul Qadeer Khan, the head of its uranium enrichment programme. Reflective of a shared awareness of this mutual nuclear capacity, in December 1985 India and Pakistan signed a Nuclear Non-Attack Agreement that prohibited the targeting of nuclear facilities in the event of conflict.

Both sides also began testing ballistic missiles that were theoretically capable of carrying a nuclear warhead, underlining how the two states were sufficiently technologically developed to build a nuclear weapon. In February 1988 India tested *Prithvi*, a short-range ballistic missile with a range of 150 km and capable of carrying a 1,000-kg warhead. In February 1989 Pakistan then tested its battlefield range ballistic missile, *Hatf I*, with a range of 70 km and capable of carrying a payload of 500 kg. In turn, in May 1989 India tested *Agni*, a short-range ballistic missile with a maximum range of 800 km with a 1,000-kg warhead. From this period onwards, both sides would continue to advance their respective missile technologies, expanding their range and payload capacities, and thus increasing the susceptibility of Indian, Pakistani and Chinese cities to potential attack. In 1988 US officials reported that Pakistan had gained a nuclear weapon design from China, along with related missile technology.[22]

Despite these developments, India's diplomatic efforts to achieve unilateral nuclear disarmament continued, and included a new dimension of self-restraint whereby India would not test any further nuclear weapons. As such, in 1978 India pursued negotiations for an international agreement on prohibiting the use or threat of use of nuclear weapons; in 1982 she called for a 'nuclear freeze' to prohibit the production of fissile materials for weapons and in 1988 Prime Minister Rajiv Gandhi tabled an Action Plan at the UN for the phased elimination of all weapons within a specific timeframe.[23] India also supported plans for a Nuclear Weapons Convention akin to the Biological Weapons Convention (opened for signature on 10 April 1972 and entering into force on 26 March 1975), and the Chemical Weapons Convention (opened for signature on 13 January 1993 and entered into force 29 April 1997), both of which India signed.

However, as had been the case for the NPT, India refused to sign the Comprehensive Nuclear Test Ban Treaty (CTBT) that opened for signature in New York on 24 September 1996. India argued that the Treaty favoured the P-5 powers, did not carry forward the disarmament process and, therefore, effectively diminished India's nuclear potential.

By the 1990s India's nuclear weapons programme appeared to face an existential crisis. India's nuclear stance appeared as ambiguous 'recessed deterrence', and she remained one of the 'main NPT holdout states',[24] along with Pakistan and Israel. Still contending with international sanctions, it seemed that many international proliferation controls were India-specific and intended to threaten her strategic autonomy and Great Power emergence. Thus, Indian analysts talked of a US-EU-Japan (and even US-China) concert against India. When the CTBT's entry into force provisos (Article 14) opened up a final testing window from September 1996 to September 1999, such nuclear inequity appeared to be explicit, particularly after China and France tested nuclear devices in 1995. The indefinite extension of the NPT in 1995 only compounded these perceptions. International rebuffs towards India's attempts at restricting proliferation had, however, continued to spur Indian leaders towards nuclear (weapons) development.[25] The end of the Cold War also signalled the demise of the USSR as a reliable counterweight for India to use against the international system, along with a now less meaningful NAM. Unable to benefit from Soviet arms trading and political support, India was increasingly isolated in a world now dominated by the USA—a position that threatened her regional security and global influence.

Pokhran II: from outlier to mainstream

In 1998 a newly elected government led by the Hindu nationalist Bharatiya Janata Party (BJP) came to power. With policies that promoted the image of a powerful, resurgent and dynamic India to the world, the BJP had consistently advocated the induction of nuclear weapons in their election manifestos. In particular, they recognized the symbolic appeal of testing nuclear

weapons. As the new Minister of External Affairs, Jaswant Singh argued that international proliferation controls amounted to a 'nuclear apartheid' that cast South Asia and Africa outside of the dominant global 'nuclear security paradigm'.[26] Such discrimination placed India in a position inferior to the Great Powers, often in association with Pakistan. This perspective linked with the repeated calls from India's strategic enclave of analysts and academics to resume testing. Although India had the appropriate scientific-military nuclear infrastructure in place, it was often only US pressure (and intelligence) that had stopped any new tests, particularly in the mid-1990s.[27] These factors coupled with the BJP's desire to test—often bolstered by their nationalism and a need to establish the power of their governing coalition.

Several other regional, global and systemic factors were also in evidence by 1998. Thus, analysts noted how India's strategic environment had deteriorated due to China's rapid economic rise, which made India-China relations asymmetrical and unbalanced. They also remarked upon how the USA was reluctant to become a declining power (and therefore wanted to force its strategic view on the world), how Pakistan had gained (covert) nuclear parity with India, and also how India's own economic growth would allow her to withstand new sanctions in the event of new testing.[28] Others saw the need for a new Indian world view that shifted away from Cold War strategic calculations, particularly with the continued absence of a nuclear guarantee.[29] Against this backdrop, amid great secrecy, and only two months after coming to power and after new Pakistani missile tests (*Ghauri*) on 6 April, the BJP Government under Prime Minister Atal Behari Vajpayee tested five nuclear devices on 11 and 13 May 1998. Confirming their own capabilities and in response to domestic pressures, Pakistan carried out its own nuclear tests at Chaghai Hills in Baluchistan on 28 and 30 May.

Codenamed Operation *Shakti* (strength), and often called Pokhran II (having used the same test site as the 1974 PNE), India's 1998 nuclear explosions were the first overt tests since the NPT had come into force in 1970. They also came at a time when several states had recently renounced their nuclear programmes, including South Africa (in 1993), Argentina (in 1995) and Brazil (in 1998), all of which then signed the NPT. For India's elite, the tests were not only about challenging the international non-proliferation regime and declaring India's nuclear prowess to the world, but also about the ongoing validation of her nuclear programme and technological development.[30] Thus, the BJP could have simply declared India to be a nuclear weapons state in 1988, but during Pokhran II tested a thermonuclear device that required an as yet untested nuclear triggering device. These issues backed up the credibility and expertise of India's scientific community (thus continuing the central scientific drive of India's nuclear programme that dated back to the 1940s) and ensured that India had a proven and credible nuclear deterrent. Furthermore, the Indian Government saw nothing illegal with the tests because as a non-signatory of the NPT and CTBT, Pokhran II did not flout any international conventions. In turn, her leaders noted that India's total of six nuclear tests in 1974 and 1998 paled in comparison with the more than 2,000 tests held by the P-5 powers since 1945.

Despite initial sanctions from the USA and Japan after the tests, and almost universal condemnation, Pokhran II resulted in India moving from an outlier of little significance to the international mainstream. Not only did the tests result in a new assertion of Indian autonomy in international affairs, but they also provided their own nuclear guarantee—thus removing any need for dependence on external states. Indeed, the tests transformed her global relations, especially through their explicit enunciation of India's desire for a Great Power role, which was supported by her increasing economic and technological strength. This combination made India a state *needed* by other countries. In turn, policy concerning UNSC recognition became more prominent, with a permanent seat now seen as 'not a quest' but as 'India's rightful due'.[31] While certainly less idealist, more belligerent and increasingly pragmatic, India's leaders still argued for

universal nuclear disarmament. India used their acquisition of nuclear weapons as a new point of leverage, stating that they would give up their own proven nuclear capabilities in any new non-proliferation regime. Therefore, the paradox at the centre of India's nuclear programme between weaponization and disarmament that had been present since independence continued.

Also characteristic of this paradox, India's National Security Advisory Board unveiled the state's Draft Nuclear Doctrine on 17 August 1999. The main elements of the doctrine were a no-first-use policy, non-use of nuclear weapons against non-nuclear weapons states, a moratorium on nuclear tests, the non-export of nuclear technology and working towards universal nuclear disarmament. Conservative in nature, the doctrine displayed a commitment to using 'strategic nuclear assets as instruments of retribution in case deterrence fails', rather than as tools of aggression.[32] Such a nuclear doctrine was regarded as conducive to strategic stability in South Asia, which reassured China and the USA in particular, and created the image of India as a responsible nuclear power. Building upon the 1999 Draft, India's nuclear command structure was made public on 4 January 2003. These doctrines also accompanied the comprehensive review of national security in 1999 (the first since independence) that introduced a Nuclear Command Authority (NCA) under the control of the Prime Minister and the new post of National Security Adviser.

The impact of the Pokhran II tests varied. At the regional level, relations appeared to worsen, lead to conflict and then stabilize with Pakistan, whilst deteriorating and then significantly improving with China.[33] The most important impact of the 1998 tests was on the Indo-US relationship. After initial anger at their deception, the 1998 nuclear tests forced US attention onto South Asia—particularly given India's significance as the largest military (and now nuclear) power between the USA's two major military presences in the Persian Gulf and East Asia. Likewise, Pakistan's own tests placed the region under greater scrutiny and were a spur for serious dialogue between envoys from both sides. Lasting eight months, this was the longest sustained dialogue between high-level Indian and US officials since 1963. Against the backdrop of nuclear proliferation (with the USA urging India to sign the CTBT), Kashmir, economics and the US sanctions that had been in place since 1974, the talks transformed a difficult relationship between the two sides into a co-operative one. Critically, the USA accepted the new significance of India in terms of its economy, nuclear capabilities, stable democracy and large middle class. However, misgivings over US ties with Pakistan and China continued to underpin Indian sentiments.

These developments formed part of Indian elite attempts to strategically lift India away from South Asia towards a greater global role—itself an ongoing goal associated with acquiring nuclear weapons—and to improve her security environment. Enhanced Indo-US relations also provided possibilities to obtain (nuclear) technology transfers, which could significantly aid India's economic development. Through the Agreed Principles of 21 March 2000, both sides resolved to have a closer and better relationship in all spheres (including nuclear), and with the arrival of President George W. Bush, the USA dropped all demands for India to sign the CTBT and join the related Fissile Material Cutoff Treaty (FMCT). Common experiences of terrorism (for the USA the attacks in September 2001 and for India the attacks in December 2001 on its parliament), a shared democratic basis and a newly vocal Indian diaspora in the USA also helped to improve US-Indian relations.[34] This improved relationship also paid other dividends, including a more neutral tilt towards Pakistan (particularly during the 1999 Kargil conflict) and de-hyphenating India and Pakistan when US policy-makers thought of South Asia, as well as heightened economic, political, cultural and military co-operation.

Improved Indo-US relations led to the signing of their Next Steps in Strategic Partnership (NSSP) of January 2004, which focused on the three-fold issue of civilian nuclear energy,

civilian space programmes and high technology trade, with a dialogue on missile defence being added. Under the joint US-India Civilian Nuclear Cooperation announcement (July 2005), India agreed to separate its civil and military nuclear facilities and to have all its civil nuclear facilities placed under IAEA safeguards. This agreement gave India de facto nuclear recognition. After being passed in the US Congress (via the Hyde Act, which allowed the modification of Section 123 of the 1954 US Atomic Energy Act), it was then blocked from scrutiny in the Indian parliament, although only after Prime Minister Manmohan Singh survived a no-confidence vote in July 2008. Subsequently, in August 2008 the IAEA approved the safeguards agreement with India, and in September 2008 the NSG granted India a waiver, over Chinese obstruction, to give India access to civilian nuclear technology and fuel from other countries—developments that effectively allowed India to sidestep the requirements of the NPT. In October 2008 the deal was legislated as the United States-India Nuclear Cooperation Approval and Non-Proliferation Enhancement Act, ending the US sanctions on nuclear trade that dated from the 1974 PNE.[35]

Conclusions

With a consistent policy of nurturing her atomic capabilities since independence, by the beginning of the 21st century India's nuclear weapons programme was established and overt. Through the 1998 tests and the subsequent rapid developments in Indo-US relations, India had become a de jure nuclear state despite being outside international proliferation controls—giving her a unique international status. Displaying a proven nuclear weapons capability within a conservative and defensive doctrine, India had shown her technological and scientific prowess to the world. These capabilities had increased India's (and South Asia's) prominence and importance in international relations (especially for the USA) and further bolstered India's aspirations to become a Great Power. In turn, India's domestic nuclear energy programme benefited from the 1998 tests, as a decade later she surmounted the international safeguards that had at one time restricted her. Aiding her continued economic growth and energy security, the signing of civilian nuclear agreements with the USA, France and Russia confirmed the success of this trajectory and firmly placed her in the group of established nuclear powers.

However, what of the paradox of weaponization and disarmament underpinning India's nuclear policy? While India's leaders had rallied against the 'nuclear haves', with the 1998 tests and their aftermath India appeared to have joined the nuclear apartheid which it abhorred. Even though she has yet to join the NPT or CTBT, India enjoys the privileges of the P-5 powers whereby they do not need to have their military nuclear facilities monitored. India's leaders have displayed remarkable tenacity to get her to this position, but it is unclear whether they will continue to pursue India's disarmament goals or now acquiesce to an international regime which their country has effectively joined. This situation is compounded by India's growing strategic nuclear capabilities, most particularly its recent acquisition of a 'nuclear triad' that gives her the ability to launch nuclear weapons from land, air and sea. Such an ability puts India on a par with the USA, Russia and China. Continued missile development also resulted in the successful testing in February 2010 of the Agni-III, which with a range of 3,500 km is capable of hitting Beijing, and which made India China's clear strategic rival.

Thus, while India's leaders continue to talk of disarmament, the morality of such aims has diminished in the face of India acquiring atomic weapons. This change suggests not so much that India's nuclear paradox has been lost, but simply underlined as a multi-faceted tool with which she can continue to gain her aspiration to Great Power status. Indeed, some Indian analysts advocate vast increases in her nuclear arsenal to include 150–200 warheads, and even to

offer other states protection under an Indian nuclear umbrella.[36] As such, India could choose to join the NPT as a nuclear weapons state, thus gaining parity with the P-5 powers and introducing a new commonality with them that could aid her geopolitical power aspirations and stated aim of reforming the UNSC through gaining Permanent Member status. Such NPT commonality with the USA, Russia and China could be used as a more convincing base for universal nuclear disarmament—although the nuclear capabilities of these states currently far exceed India's. Finally, in an age of growing multilateralism and globalized economics, nuclear weapons appear more symbolic than strategic—with economic strength, technological advancement and influence in international forums more likely indicators of current and future power potentials. India's nuclear weapons may thus aid her international rise but appear unlikely to define it.

Notes

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