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What is the role of nuclear weapons for India?

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Little Boy and Fat Man were the names of the two atomic bombs that USA dropped on Hiroshima and Nagasaki on August 6 and 9, 1945. An estimated 70,000 – 100,000 people immediately vaporised and many more succumbed later to injuries and radiation poisoning at Hiroshima. In Nagasaki 64,000 of its 195,000-population reportedly suffered immediate casualties, while several thousands died later.[1] Stunned by the damage, Japan surrendered.

The true destructive potential of this weapon was understood only after its use. The yield of these bombs was a mere 15 and 20 kilotons. But their nature was clearly distinct from even larger-yield conventional ordnance. These were weapons of mass destruction not only for the substantial instantaneous release of energy in the form of blast and thermal heat, but for the large amount of ionizing radiation that caused a nuclear fallout that went beyond ground zero and into future generations.

What could be the role of such weapons in military strategy? What politico-military objectives could they be suitable for? Bernard Brodie, an American military strategist, called it the “absolute weapon”. He presciently stated in 1946, "Thus far the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them. It can have almost no other useful purpose."[2] Indeed, the high destructive capability of the weapon was found to limit its utility only to the purpose of deterrence.

Since then, lower yield nuclear weapons have also been developed to reduce the deleterious effects of a nuclear detonation. Yet, as a report by the Federation of American Scientists in 2001 concluded, even a ground burst of a nuclear yield “as small as 1 percent of the Hiroshima weapon would simply blow out a massive crater of radioactive dirt, which rains down on

the local region with especially intense and deadly fallout."[3] Furthermore, even when a 'small' weapon is used, there can be no guarantee that retaliation will not cause escalation to higher levels. This unpredictability after nuclear use limits the role of these weapons to deterrence alone. But, what all can nuclear weapons deter?

The nine nuclear armed states in the world today have designated varied roles for their nuclear weapons. It could be to deter only the use or threat of use of nuclear weapons of the adversary. This is called sole purpose use. Or, it could be to deter large scale conventional war (as in case of USA, Russia and Pakistan), cyber or space attacks (as in case of USA), or even chemical or biological weapons attacks (as in case of India). Some countries even use it as a shield for fomenting sub-conventional war (as Pakistan), as a bargaining chip for extracting economic and military assistance (as has been used by Pakistan and North Korea), or for safeguarding against regime change (China and North Korea).

Role as per India's Nuclear Doctrine

A draft of India's nuclear doctrine was prepared by the National Security Advisory Board and made public in August 1999. It stated that the "fundamental purpose of Indian nuclear weapons is to deter the use or threat of use of nuclear weapons by any State or any entity against India and its forces".[4] But, on January 4, 2003, a press note entitled, "The Cabinet Committee on Security Reviews Operationalization of India's Nuclear Doctrine", considered the official nuclear doctrine, stated that "in the event of a major attack against India, or Indian forces anywhere, by biological or chemical weapons, India will retain the option of retaliating with nuclear weapons".[5]

The expansion of nuclear weapons' role was likely triggered by the then prevalent threat perception in the wake of the 9/11 terror attacks on World Trade Centre in New York. The US nuclear posture review (NPR) of 2002 expressed high concern about WMD terrorism. Given India's own threat perceptions from cross-border terrorism, it too found it prudent to include such a provision in the 2003 document. There it has since remained, though subsequent American NPRs, including the latest one of 2022, have removed the mention.

Nuclear deterrence against chemical and biological weapons (CBW) is a difficult proposition. It purports threatening the adversary with unacceptable nuclear damage for a use of CBW. This is theoretically possible against states, but it has not been found to be practical. Iraqi or

Syrian use of chemical weapons was not deterred. The best way of minimising, if not obviating, chances of CBW use by state actors is by strengthening universal compliance and enforcement of Chemical Weapons Convention (CWC) and the Biological Weapons Conventions (BWC) that prohibit state's from possessing or using such weapons. China, India and Pakistan, besides most other states, are signatories to these treaties. India should help sharpen the efficacy of these instruments at the national and international level to reinforce deterrence.

What about use of CBWs by non-state actors? This is considered probable. But deterring terrorist organisations by threat or use of nuclear weapons is questionable since such actors have no fixed territory or targets against which one could do nuclear retaliation. In fact, attribution and nuclear retribution would both be problematic. Therefore, continuously improving surveillance, international policing, interceptions and cooperative state behaviour and actions should be the focus.

Role of Nuclear Weapons in Addressing India's Security Challenges

The purpose for which India acquired and retains nuclear weapons is to safeguard against nuclear blackmail or coercion, given the claims that India's nuclear armed adversaries make on its territories. Nuclear weapons ensure stability of deterrence at the highest level and rule out the possibility of India being subjected to a nuclear or large-scale conventional, existential threat.

However, there are three other challenges that trouble India's security. These arise from Pakistan's continued use of cross border terrorism; from China's attempts at territorial salami slicing by ingressions across the line of actual control (LAC); and from the possibility of the two colluding to pose a two-front threat to India. Many, including in the security establishment, ponder why a country with the fourth largest military, and nuclear weapons, should find itself vulnerable to such threats? Why do India's nuclear weapons not deter these? An answer to these questions lies in understanding the strengths and limitations of nuclear weapons.

Deterring Pakistan's Sponsorship of Terrorism

The threat or use of nuclear weapons has not been considered a credible option to deter Pakistan's use of cross-border terrorism. Punishment to terror attacks has been, and can best be, meted out at the conventional level. In fact, as India has shown, keeping nuclear weapons out of the equation when mounting a punitive response to terror strikes is most effective. While Pakistan

prefers to couple India's conventional action with own projection of a low nuclear threshold, for India the answer lies in de-coupling the two so as to have the 'space' to employ military force in a manner that makes Pakistan's nuclear weapons redundant. Surgical strikes in 2016 and air strikes in 2019 are illustrative of this. Besides kinetic options, India has also used diplomatic, information and economic actions to isolate and punish Pakistan, raising the costs of its support to terrorism.

Therefore, to deter terrorism, one has to draw from a different quiver that cannot benefit by inclusion of the threat of nuclear weapons. Remember, a country with as formidable a nuclear arsenal as the USA could not claim success against terrorism despite a 20 yearlong global war on terror. India will have to continue to make innovative and measured use of the scalpel rather than resort to the nuclear sledgehammer.

Deterring China's Incursions at LAC

To counter Chinese aggressive behaviour at the LAC, it has often been wondered whether India should signal a low nuclear threshold to make up for its relatively lesser conventional strength. The assumption here is that threatening nuclear escalation for Chinese incursions would deter better. However, the credibility of threat of nuclear use for ingresses into territory that is disputed is doubtful. Would a political leader find it prudent to use nuclear weapons in response to a skirmish at the border, in full knowledge of the fact that his nation risks nuclear retaliation?

Indeed, conjoining conventional operations with threat of nuclear escalation would not only raise risks for self, but also constrain the scope for conventional responses. India's search for credible deterrence against aggressive Chinese behaviour has to scour the realm of the diplomatic, information, military, economic (DIME) spectrum. India needs to raise the tempo on all that it is currently doing to deter China – building adequate infrastructure and military capability in relevant theatres, diplomatically shaming China's blatant aggression, building necessary partnerships within and outside the region, and economic self-strengthening.

Deterring China-Pak Two Front War

Given the strategic nexus between "iron brothers" Pakistan and China, it has been questioned whether India should not adopt an offensive nuclear posture. Should India not avert the possibility of being placed in a pincer by threatening nuclear use? For this, one needs to examine the credibility of such threats and what it would mean if they had to be carried out. After all, laying

down artificial redlines for nuclear use in conventional scenarios can place national leadership in a credibility crisis or a commitment trap where self too would bear consequences of nuclear retaliation.

So, worrisome though the prospect of a simultaneous conventional war with both sides is, holding out nuclear threats may not provide credible deterrence. Rather, the answer lies in building conventional strength with the 'right' kind of a smart force structure, including asymmetric capabilities, that can hold off both fronts. This would obviously not come quickly or at a low cost. Additionally, it needs to be buttressed with deft diplomacy, extensive partnerships, and information warfare to fuel fissures between China and Pakistan. Beijing and Islamabad have no civilisational, ideological, socio-cultural, or religious affinities. China is apprehensive of Pakistan's radical Islam and its appeal with the Uighurs; Pakistan is realising the effects of a debt trap. Other points of friction can be found and exploited.

Dealing with a two-front collusive threat will require Indian military, diplomatic and political leaders to act along multiple fronts. It would be imprudent and even dangerous to 'lazily' rely on nuclear weapons to find a way out of the situation.

Lessons from Russia-Ukraine Conflict

The ongoing Russia-Ukraine conflict is a good study to understand the role of nuclear weapons and their limitations. Though it would be premature to make any definitive pronouncements since the war is still on and much will depend on how it ends – with or without the use of nuclear weapons, and with or without victory to the user of such weapons -- but two aspects, nevertheless, stand out.

The first is the political value of nuclear deterrence. Russia used nuclear threats as soon as it started its special military operations to deter the US/NATO from interfering. Moscow's repeated recall of its nuclear capability has deterred the West from providing all weapons that Ukraine has demanded. Clearly, nuclear weapons play a role in constraining the nature and scope of conflict.

A second evident aspect is the inefficacy of nuclear weapons as militarily usable instruments. Despite significant losses and the possession of a large nuclear arsenal, Moscow has not brought nuclear weapons into play. In fact, even 'tactical nuclear weapons', which have often been touted as *the* weapons to 'escalate to de-escalate' a situation have not been used. This

casts doubts on how to use nuclear weapons to achieve a meaningful politico-military outcome. Meanwhile, though realists undervalue the taboo against nuclear use, it does weigh on decision makers. Even 'absolute' leaders have not found it easy to use the 'absolute' weapon, or even its 'smaller' avatars for fear of the consequences, including on their own reputation and legacy. History shows that while nations may be condoned for their actions in war, leaders bear the cross of accountability.

Credibility of 'Sole Purpose' Role

A correct comprehension of the role of nuclear weapons is key to tempering inflated expectations from them. What a blade can do, a sword cannot. Nuclear weapons are truly credible only when tasked to deter the use or threat of use of nuclear weapons. Nations may proclaim expanded roles for them against threats from conventional, cyber, biological and chemical, or even space attacks. But such use has never been found to make politico-military sense in seven decades, given the weapon's high and indiscriminate destruction potential.

India's draft nuclear doctrine encapsulated this comprehension and allocated a narrow role for nuclear weapons. Employing them for anything other than deterring nuclear use, it was understood, would skew the cost-benefit calculation. Now, after a further two decades of experience, it might be worthwhile to consider reverting to a purist role for nuclear weapons, whenever a revision of the doctrine is undertaken. Overburdening nuclear deterrence with non-credible roles can only frustrate leaders and confuse the citizens when their limitations show up in crises. Therefore, while building credible nuclear deterrence, it would be prudent to remain mindful of the role that this weapon can best play in national security.

Notes:

[1] https://www.britannica.com/event/atomic-bombings-of-Hiroshima-and-Nagasaki/The-bombing-of-Nagasaki.

[2] Bernard Brodie, *The Absolute Weapon: Atomic Power and World Order* (Connecticut: Yale Institute of International Studies, 1946), p. 67. Soft copy of book available

[3] Robert W. Nelson, "Low Yield Earth-Penetrating Nuclear Weapons," *FAS Public Interest Report*, January-February 2001, http://www.fas.org.

[4] Draft Report of National Security Advisory Board on Indian Nuclear Doctrine, August 17, 1999. Reproduced as Appendix 1 in Manpreet Sethi, *Nuclear Strategy: India's March Towards Credible Deterrence* (New Delhi: Knowledge World, 2009), pp. 341-346. Also available at https://www.legal-tools.org/doc/70efe4/pdf/.

[5] "The Cabinet Committee on Security Reviews Operationalization of India's Nuclear Doctrine", January 3, 2004, Reproduced as Appendix 2 in Ibid, pp, 347-348. Also available at https://archive.pib.gov.in/archive/releases98/lyr2003/rjan2003/04012003/r040120033.html.

Recommended Readings:

- Bernard Brodie, *The Absolute Weapon: Atomic Power and World Order* (Connecticut: Yale Institute of International Studies, 1946)
- Jasjit Singh, *India's Security in a Turbulent World* (New Delhi: National Book Trust, 2013).
- Jasjit Singh and Manpreet Sethi, *Nuclear Deterrence and Diplomacy* (New Delhi: Knowledge World, 2004)
- Ashley Tellis, *Striking Asymmetries* (Washington DC: Carnegie Endowment for International Peace, 2022)
- Glenn C Buchan et al, *Future Roles of US Nuclear Forces: Implications for US Nuclear Strategy* (Santa Monica, CA: RAND, 2003)