



Does India Need to Review its Nuclear Doctrine?

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Introduction

Historically, 'Nuclear doctrines' have been developed by Nuclear Weapon States (NWS) in order to give direction to their national/international strategies and to enhance national power. These doctrines generally consists a set of broad guiding principles that are aimed at outlining nuclear strategy, and structuring the development of nuclear forces accordingly. Over time they have illustrated definitive postures adopted by NWS, alternating between aggressive strategic policies, (through the principles of 'First Use'), to defensive strategic safeguards (with a 'No First Use'). Doctrines therefore also become a means to examine the strategic approach adopted by various nations. Despite the initial impetus, however, the static nature of doctrinal policymaking has caused a stagnation of sorts. Faced with a changing world order and emergent balances of power, fundamental questions need to be raised regarding the role modern doctrines foresee, for nuclear weapons in meeting individual countries' national interests, while also creating a globally viable security framework. Secondly, policies also need to be modified and reassessed in order to determine the amount of clarity and specificity, or conversely ambiguity, should the doctrine [be allowed to] express¹. While analysing the particularities of a nation's nuclear doctrine it is essential to understand the geo-political power balance created by the country's neighbourhood. India for example is surrounded by two nuclear states with varying postures and doctrines, and therefore has had to balance its doctrine in order

to avoid the dual danger of being ambiguously offensive or overtly defensive. Also stability in this region is impacted in a large sense by the intersecting nexus of Pakistan and China, whose nuclear postures have a cascading effect on the security framework of Asia. An impartial analysis of any nuclear doctrine therefore can only be achieved keeping in mind the relative nature of security and the various threat perceptions that emerge out of geostrategic power plays.

The core characteristics of India's doctrine are derived from both normative and instrumental considerations, as elaborated by Mr. Mahesh Shankar and T. V. Paul². On the Normative plane India has adopted the relatively restrained and slightly defensive policy of NFU. As a key advocate of peaceful and stable Asia, India does not want to initiate conflict by upending the status quo and hence it has introduced various non-proliferation and disarmament initiatives such as the Rajiv Gandhi Action Plan for a Nuclear-Weapons-Free and Nonviolent World Order. The proposition of geostrategic stability necessarily requires the avoidance of an arms race at all costs, but since in current times this seems to be a distant dream, hence nations like India are forced to recalibrate its nuclear arsenals. However; it is also true that India does not want to be the nuclear arms perpetrator, hence, India is trying to develop a force structure which is based on the policies of Credible Minimum-Deterrence and a policy of No First Use (NFU). Further measures – such as keeping the weapons in de-alerted positions – are also being taken with the aim of bringing stability to Asia. In fact, when

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in power, Prime Minister Manmohan Singh had proposed the adoption of a Global NFU policy by all the Nuclear Weapon States³. Currently, this proposal is being debated by many countries and in America, there are discussions regarding the benefits of adopting NFU. Through its nuclear doctrines, therefore, India is trying to maintain an incredibly intricate balance between demonstrating its continued commitment to deterrence, while simultaneously maintaining its national interests against malicious and volatile geostrategic threat perceptions.

The above narrative essentially highlights the fact that India's decision to develop Nuclear Weapons capability was not a voluntary choice but a question of preserving national interests in order to deal with constantly evolving geostrategic power plays. Understanding this fact is central to examining the trajectory that has shaped 'India's Nuclear Path'. An example of such environmentally determined impetus is India's second nuclear test in May 1998, which was influenced by the volatile geo-political environment of the time. On the one hand there was the growing affinity between China and Pakistan as evinced by the Sino – Pak nuclear collaboration, and on the other hand, China doggedly pursued its path of rapid military modernization – especially in the case of the nuclear program – which potentially upended the strategic balance in Asia. As a result of growing hostilities and shifting power plays within the geostrategic neighbourhood, India was forced to retaliate with a means of defending itself as well as its national interests. However, in order to reaffirm the non-invasive and primarily self-defensive adoption of nuclear weapons, after conducting the nuclear test, India formulated its preliminary nuclear doctrine draft, prepared under the chairmanship of nuclear strategist K Subrahmanyam. This draft was primarily aimed at assuaging the apprehensions of other nations regarding India's nuclear program and it was therefore put for public debate on August 17, 1999. However, this detailed Draft Report of the National Security Advisory Board on Indian Nuclear policy was never formalised. Several years later, post the next election with the change of government - a Cabinet Committee on Security

(CCS) enunciated India's Nuclear Doctrine in a press release on 04 January 2003. This new nuclear doctrine continued the tradition of the first one retaining most of the attributes of the previous draft with minor alterations.

Now, nearly fifteen years later, the debate is on as to whether it is about time to review and re-examine a document which might gradually become a mere relic of the past or to continue with this doctrine untempered. Nuclear theorists have divergent views, with the 'idealist' school of thought believing that Doctrines, by nature are a reflection of a country's cultural ethos, and must consequently be viewed as binding and timeless. Especially, they believe that one needs to take into account the detailed and analytical thought processes, which have been spent on creating this framework. Theorists that follow the 'Realist' school of thought however, insist that policy and strategy are spatially and temporally contextual, and are furthermore based on exacerbating factors of a country's geostrategic neighbourhood. They believe, therefore that every doctrine remains valid for the particular time frame for which it is drafted, post which there is an urgent need to review, re-examine and reassess. If one were to follow the Realist school of thought, there is a need to state the reasons for which a re-examination of the Doctrine is necessary.

Reasons to Review India's Nuclear Doctrine

The Americans and the Russians often review their nuclear policy periodically, the Indian doctrine, however, does not have such a caveat which requires such mandatory scrutiny. One of the primary reasons used to advocate the reviewing of doctrines is the fact that most theories of International relations and doctrinal policy are linked to the preservation of national interests in a constantly evolving and shifting, geo-strategic world order. As a contextual example, India's decision to adopt Nuclear weapons was primarily a result of China's nuclear test and the China-Pakistan nuclear collaboration, (as mentioned earlier) that actively posed a dual pronged threat within the immediate neighbourhood. Since this imbalanced geo-strategic

alignment still continues, (as a matter of fact the relationship between the two countries has become even stronger now) there is according to the realist a need to reflect and review. If this weren't enough, there are several further reasons according to them for the advocacy of policy review such as:

- ◆ Firstly, the recent technological boom that has led to an immediate harnessing of niche technological advancements for military purposes.
- ◆ Secondly, shifting paradigms of nuclear weapons and the emergence of new threats within the geostrategic regions and its foreseeable impact on India's national security interests.
- ◆ Finally the relative success or failure of the doctrine in achieving its pre-planned objectives.

On pursuing a further analysis of contextual factors, one finds that Pakistan has changed its stance from a limited to a 'Full Spectrum Response' and it is now evolving its force structure to match this theoretical stance. They have recently developed a short range tactical nuclear missile 'Nasr' which has given it the range to fill the gap at the lower end of the spectrum, since they already possessed the medium range Shaheen series aimed at addressing threats at the higher end. Since the TNWs would be deployed locally at the lowest end of the military unit it brings with it the threat of 'Nuclear Terrorism'. Regarding the first point, as far as niche technologies are concerned, though India has tried to keep pace with the global technological advancements whether it is Ballistic Missile Defense (BMD) capabilities or the MIRV trajectory; but other technologies like 'Cyber Warfare' can challenge any country's policy of credible deterrence. The important question that remains however is whether the present nuclear doctrine can serve as enough of a restraining tactic to keep Pakistan's TNW, nuclear terrorism and cyber warfare in check. Thus, there is a need, to re-evaluate India's doctrinal stance in order to examine its competence in terms of addressing such emergent power balances and volatile threat

perceptions. The preliminary requirement of such an examination would be a detailed analysis of the prevalent doctrine.

Analysis of Key Features of India's Nuclear Doctrine

The analyses of the main components of India's nuclear doctrine as per the Cabinet Committee on Security's (CCS) press release of January 2003⁴ are as given below.

1. Building and Maintaining a Credible Minimum Deterrent–

This brings up two central aspects that need to be taken into consideration. Firstly, there is the question of how to create an axis of 'credibility', and secondly how to quantitatively determine the minimum number of nuclear weapon required for 'credible' deterrence purposes. The size and nature of India's nuclear arsenal has been kept open ended and no minimum/maximum number has been stipulated. This ambiguity is a key factor of the nuclear doctrine as it provides India with the flexibility to develop its nuclear arsenal keeping in mind the nature/trends of nuclear development by India's adversaries. The major challenge that India faces right now is that its nuclear neighbours – China and Pakistan—are diverse in nature and the consequent threat perceptions that emerge from these diverse geostrategic pressures are also varied. Both of these nations inhabit a different context of power due to the varying geographic positions they occupy. Additionally, they have built their respective nuclear arsenals keeping this relativity in mind. For Pakistan, increased development of its short range arsenal is a priority, while for China the military focus is primarily directed towards medium and the long range missiles along with BMD and space capabilities. In such a situation it becomes imperative for India to develop a force structure which can adequately counter the challenges posed by both these adversaries. Hence India has to develop its BMD capabilities alongside its long range missile capabilities with MIRVs and the Indian nuclear doctrine allows for the flexibility of developing both. As far as Credibility is concerned, in order to have credible deterrence one needs to develop three things:-

- ◆ Sufficient and survivable nuclear force
- ◆ A strong Command and Control system
- ◆ Signalling of Deterrence Capabilities

The development of all three factors does not require any major doctrinal changes per se. Since India believes in 'Second Strike', it is already working to have a triad in place. The developmental capacity in terms of nuclear warheads, infrastructure, delivery vectors, their ranges and accuracy are domestic issues that the government needs to work on keeping in mind, the fact that the strategic gap can nullify deterrence capabilities. Similarly, command and control capabilities tend to get overlooked and are often not discussed in detail, as a lot of this information is highly sensitive and can lead to security breaches, however, at the very least, the robustness of all the aspects of command and control need to be tested on a regular basis. The final factor, signalling of deterrence capabilities, is the most significant part of deterrence because "The strength of deterrence relies on convincing the opponent that punishment outweighs gains of aggression. But this punishment is a perception and the perception can be strengthened only through two things- Capability of the Deterrent and Certainty of Punishment"⁵ Hence it is essential that both the issues are signalled in an appropriate manner, keeping the timing in mind, which remains a factor of crucial importance.

2. A posture of "No First Use": nuclear weapons will only be used in retaliation against a nuclear attack on Indian Territory or on Indian forces anywhere; This is the issue that is central to most theoretical debates regarding India's nuclear doctrine. Before examining the issue in detail, it is essential to lay down the preliminary arguments in favour of, as well as against this caveat. Those who are against this caveat believe that it is effectively a defensive posture that precludes the possibility of keeping the potential adversary wary of a surprise attack. According to the theorists, this caveat is especially ineffective when dealing with Pakistan, who is constantly trying to lower its threshold with its TNWs. Given the volatile nature of Pakistan's

inflammatory nuclear stance, a first strike by them would be catastrophic to say the least. In order to countermand such strategic nuclear posturing, India needs to reinforce the robustness of its nuclear command and control systems by adopting either a launch-on-warning (LOW) or a launch-under-attack (LUA) posture. On the other hand the theorists, who are in favour of NFU view, believe that NFU is logical, provided some modifications are made for contextual geostrategic threats. India's strategic restraint posture exemplified by NFU has resulted in major gains internationally, including the lifting of economic sanctions and the removal of technology denial regimes, civil nuclear cooperation agreements and accommodation in multilateral nuclear export control regimes⁶. Also this posture is a balanced one since it recognizes the active pitfalls of falling into the first strike capability trap. Firstly it helps maintain the land weapons in de-alerted positions which is a non-escalatory nuclear strategy. Secondly, the kind of force structure required for 'First Strike' is tremendous and the repercussions of being a first strike nation can be stigmatic and traumatic to say the least. As a simulative exercise, if one was to examine the potentiality of adopting a first use policy one would find that to perpetuate the first use policy one would need to set up elaborate arrangements with hair trigger nuclear weapon readiness and delegated C&C systems, which would dilute the security framework that is currently in place and could potentially have dangerous far reaching effects. Additionally, in spite of undertaking these positions and precautions, there is no assurance of a complete victory and no guarantee of the abolition of 'Second Strike' capabilities of the adversary. Furthermore, if one was to adopt the policy LOW/ LUA it would be very difficult to gauge whether incoming missiles are conventional or nuclear, as the geographical proximity severely limits the time frame within which to come up with a quick response and also a first use posture will deny India the opportunity to engage in conventional warfare below the nuclear threshold⁷. Finally, the No First Use posture is useful against China as well as it is a prudent and non-escalatory approach to tensions within the geostrategic region. India cannot destroy

China's second strike capabilities with a pre-emptive first strike and a country cannot have two nuclear doctrines, hence I also believe that it makes more sense to adapt the NFU policy and to have a nuclear doctrine towards maximization of national interests through the development of a diverse, robust 'Second Strike Capability', that includes regular up gradation of the nuclear systems along with multiple, well camouflaged and well secured vectors in place.

3. Nuclear retaliation to a first strike will be massive and designed to inflict unacceptable damage-

There has been lot of criticism on the word 'Massive', as some theorists believe that the word 'punitive' serves as enough of a deterrent, where massive is a politically motivated escalatory substitution. In fact, it is often argued that Pakistan has a proclivity to threaten with tactical nuclear weapons that are basically low yield weapons to be used in their own territory against Indian columns. Given the relative nature of the threat of asymmetric warfare, these theorists believe that a Massive retaliatory response against a low kiloton attack on the adversary's own territory is actually detrimental to India itself. However, this word quibble needs to be re-contextualised and the question that needs to be raised is whether it is even possible to have a graduated response when dealing with a volatile issue like nuclear warfare. Unlike conventional warfare the mechanisms of control and escalation in nuclear warfare are very intricate and highly complex, due to which controlling the response at different levels becomes complicated and often at times even impractical. This was one of the primary reasons why NATO countries were not very encouraged by the TNWs. Secondly; one also needs to raise the question regarding the purpose that nuclear weapons are meant to serve. Are they actual viable threats given the contingent geostrategic positioning in Asia, or are they merely security safeguards aimed at creating credible minimum deterrence? In case of the former, doctrinal posturing comes up against a wall, however in case of the latter, a 'Massive response' posture will force the adversary to reflect and re-examine their own position regarding the escalatory nature of nuclear warfare.

4. Another important caveat states that - Non-use of nuclear weapons against Non-Nuclear Weapon States (NNWS); However, 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;

It is essential to understand why this was added. India has not only signed but also ratified Biological and Toxicological Weapons Convention (BTWC) and Chemical Weapons Convention (CWC), hence it no longer has access to Chemical and Biological Weapons which like Nuclear weapons can wreak disastrous and devastating effects. The addition of this clause therefore served as an offensive defense strategy aimed at deterring adversaries from using CBWs against India. Some critics argue that such an aggressive posture dilutes the NFU pledge for NNWS & is a 'Commitment Trap', weakens credibility and ultimately nullifies deterrence. Furthermore they also believe that the source of biological weapons is difficult to ascertain and also the threat from the NNWS can be countered by conventional weapons. In countering this opinion, I would like to point out the careful wording that needs to be highlighted is 'Option of Retaliating' versus say the actuality of retaliating. The disjunction between potentiality and actuality needs to be highlighted once again. Therefore, if India is attacked by CBW by nuclear weapon states then India has the option to retaliate with nuclear weapons but for others conventional weapons could be used.

Furthermore, here one must not forget that the second nuclear age has developed its own peculiar problems and the major concern today is the emergence of new areas of threat in the form of 'Cyber Crimes' and Nuclear Terrorism'. These two threats not only harm the individual interests of nations but also cause a global security risk as a whole. So the debate should be whether these two threats should be mentioned here so that the ambiguities are removed or by not mentioning it one work out counter measures outside the doctrine.

For example Cyber Security in the nuclear field is a relatively recent development. With the growing number of nuclear power plants in the civilian

sector, Cyber-Crimes and hacking pose serious threats to any nuclear security architecture as they can severely damage nuclear power systems. Preventing non-state actors from obtaining information technology to disrupt critical information infrastructure and control systems is a major challenge that all the countries need to address. The approach in this regard could be either to include this threat in the nuclear doctrine or one can deal it as a subpart of India's 'National Cyber Security policy' to be dealt under 'National Critical Information Infrastructure Protection Center'. The latter approach might dilute this threat and India must consider this threat on a priority because, India has a vision of becoming a world leader in civilian nuclear technology due to its expertise in fast reactors and thorium fuel cycle and India expects to have 14.6 GWe nuclear capacities on line by 2024 and 63 GWe by 2032 and it aims to supply 25 percent of electricity from nuclear power by 2050⁸. With the rapidly increasing number of Civilian Nuclear power plants this cyber threat continues to get more pronounced. Secondly more importantly another aspect that is more important is the cyber threat that can also compromise nuclear 'Command and Control Systems' and lead to disastrous consequences. The new strategy being developed by the Americans namely the "left-of-launch" defense where cyber and non-kinetic attacks would be used against missile system computers, their sensors, and other networks, along with other high-technology means to knock out missiles on the ground⁹, is going to change the way warfare is approached in the future. One needs to debate whether the cyber-attack on the Command and Control system should be considered as the First Strike or not.

The question of 'Nuclear Terrorism' however is much more complex. The fact remains that nations have used non-state actors in the past, to further strategic asymmetric warfare. They have provided these non-state actors with the space to operate and have even cemented their support through financial and operational training. These non-state actors have then retaliated by using these avenues for their own nefarious purposes aimed at threatening world security. With the advent of

the nuclear age, the threat of Nuclear terrorism looms large due to the lack of a consensus on global security paradigms. The twin challenge of theft of nuclear fissile material/weapons by terrorist groups or the accidental use of this material if delegated to local commanders is an increasingly dangerous probability. The recent attacks in Paris and Brussels have demonstrated that terrorists could aspire to steal radioactive materials in the future for the construction of 'Dirty Bombs' or Radiological Dispersal Device (RDD). Such a dilemma affects not only the Indian national interest, but actively poses a threat to global security paradigms. The question that emerges out of this conundrum is whether Nuclear Weapons are designed for this kind of warfare. Or the ploy to counter this should incorporate all other means except nuclear. The fact that nations have not addressed this threat as an impending concern in their individual doctrines has encouraged nations like Pakistan to actively use terrorist groups to achieve their narrow domestic goals. If nuclear terrorism occurs, and if the accountability of weapons which are being used by the non-state actors is proven, then there should be a caveat in national doctrines wherein counter measures can be taken by the affected nations against their adversaries. Ultimately, in this day and age, it is inescapably the responsibility of the host nation to provide enough safety and security to its weapons and ensure against the lack of dangerous proliferation. This is why tactical nuclear weapons need to be actively discouraged and in order to reinforce this, restraint clauses should be created citing plausible retaliation with nuclear weapons against threats emerging on this count. Countries like France and UK have kept the option of the use of nuclear weapons against terrorist attacks open. France under President Jacques Chirac, for the first time had indicated the possibility of using nuclear weapons against the 'Terrorist States¹⁰'. In Asia, more so, the possibility of the deployment of a 'Dirty Bomb' is exceedingly high. It needs to be taken into consideration in the creation or reevaluation of any nation's doctrinal policy. Hence these are the few new developments which need to be debated and considered. In this revised scenario a review of the nuclear doctrine to discern the authenticity of the doctrine may be required.

5. The last two caveats of the nuclear doctrine deals with -a continuance of strict controls on export of nuclear and missile related materials and technologies, participation in the Fissile Material Cut-off Treaty negotiations, and continued commitment to the goal of a nuclear weapon free world, through global, verifiable and non-discriminatory nuclear disarmament.

India has been a pioneer as far as nuclear disarmament is concerned. A seminal speech made in June 1988 by the then Prime Minister Rajiv Gandhi at the United Nations General Assembly proposing a world free of nuclear weapons, an end to be achieved through an 'Action Plan for Ushering in a Nuclear-Weapon Free and Non-Violent World Order'¹¹ is valid even today. These caveats thus depicts the Indian sustained commitment to the goal of nuclear weapon free world through globally, verifiable and non-discriminatory nuclear disarmament process. India's membership to 'The Hague Code of Conduct' and to the Missile Technology Control Regime (MTCR) amply demonstrate India's these objectives. Hence these issues should be highlighted as this will only help in positioning India as a mature and responsible state.

Conclusion

After analysing the caveats I have come to the conclusion that India's 'Nuclear Doctrine' has created tangible and intangible advantages for India which should not be compromised. A lot of thought has gone in conceptualising this doctrine and most of the issues could be resolved through an active participation by the concerned stakeholders. At the end of the day, nuclear deterrence does remain the core principle of the doctrine and in order to ensure the success of the doctrine and the principle, effective signalling by the government through a demonstration of its determined response procedure is absolutely essential. Deterrence is ultimately a mind game and the essence of deterrence is that it must not be allowed to break down and India's nuclear doctrine must enhance and not undermine nuclear deterrence¹². There needs to be a constant endeavour towards capacity building therefore,

with special focus on technological competence in the swift development of missiles of all ranges, both conventional and nuclear. It is also important to continue to reassess the contextual validity of the doctrine while keeping in mind the changes made by its geostrategic adversaries in order to ensure that the doctrine does not become stagnant in the face of changing threat perceptions. Finally, it is prudent to note that the win emergent threats of cyber-crimes and nuclear terrorism while posing a risk to Indian national interests at the micro level, also pose macro threats to the global security architecture as well. They need to be addressed by developing a framework that creates a detailed response to such threats at the national as well as global level. It needs to be debated whether these issues should be incorporated in the doctrine, and thereby create a contemporary well informed doctrine with a defined response structure enabling a nation to successfully face the challenges of an evolving nuclear age, or these should be kept outside the doctrine and response mechanism developed accordingly.

End Notes

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