IS INDIA'S NUCLEAR DETERRENT CREDIBLE?

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Mr. Chairman, distinguished guests, ladies and gentlemen,

I wish to thank the Subbu Forum Society for Policy Studies, in particular my friend, Cmde Uday Bhaskar and the India Habitat Centre for once again giving me an opportunity to share with you my thoughts on certain issues of contemporary relevance to India's national security. And thank you, Sanjaya, for doing me the honour of presiding over this meeting. I recall well our fighting together in the trenches during the difficult negotiations on the Indo-US civil nuclear agreement. While I have been introduced as the Chairman of India's National Security Advisory Board, I must hasten to add that the views I shall be sharing with you today are entirely my own and do not in any way reflect those of the Board or of the government. These are views that have evolved over a fairly long period of time drawing upon my earlier experience in dealing with disarmament and international security issues at the Conference on Disarmament in Geneva, the two-year stint I had at the Prime Minister's Office in 1991-92, handling issues relating to external affairs, defence and atomic energy and, more recently, my involvement in the Indo-US negotiations on the civil nuclear cooperation agreement, both as Foreign Secretary and later as the Prime Minister's Special Envoy. I believe I

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A deliberate choice had been made to defer the acquisition of a nuclear weapon arsenal as long as there was still hope that the world would eventually move towards a complete elimination. have a fair sense of how our security perceptions have evolved over the years and how different generations of our political leadership have dealt with the security challenges confronting the country. I make this presentation in the hope that there could be a more informed discourse on the role of India's strategic programme in national security, a discourse that is truly rooted in India's own circumstances rather than influenced by external commentaries.

India became a declared nuclear weapon state in May 1998, although it had maintained

a capability to assemble nuclear explosive devices and had developed a delivery capability, in terms of aircraft as well as missiles, several years previously. In May 1998, this capability was finally translated into an explicit and declared nuclear weapon status through a series of nuclear tests. This is important to recognise because India did not overnight become a nuclear weapon capable state in May 1998, but until then, a deliberate choice had been made to defer the acquisition of a nuclear weapon arsenal as long as there was still hope that the world would eventually move towards a complete elimination of these weapons of mass destruction. India's leaders recognised the prudence of developing and maintaining national capability and capacity to develop strategic assets if this became necessary, but the preference remained for realising the objective of a nuclear weapon free world. The events of May 1998 reflected the judgement that nuclear disarmament was no longer on the agenda of the nuclear weapon states. On the contrary, their objective was to make permanent the division of the world into nuclear haves and have-nots, which India had rejected since the very dawn on the atomic age.

India's policy towards nuclear weapons evolved over a period of nearly three decades and this evolution was impacted by several significant developments in the country's security environment. The testing of a nuclear weapon by China in 1964 was the first major driver. There is evidence that both Nehru and Homi Bhabha had not excluded the possibility of India acquiring nuclear weapons even earlier, in case India's security and defence warranted it. India's first plutonium separation plant came up in 1964 itself at Trombay when both Nehru and Bhabha were still in office.The pursuit of strategic capability took time and each subsequent stage would be linked to certain adverse developments in India's security Reports began to appear that China had delivered a fully tested nuclear bomb design to Pakistan in 1983.

environment. It would be 10 years before India carried out a peaceful nuclear explosion, in 1974, to signal its capability to design and fabricate a nuclear explosive device. In the background was a series of developments which had heightened India's security concerns and led to Prime Minister Indira Gandhi's decision to approve the nuclear test:

- The conclusion of the Non-Proliferation Treaty (NPT) in 1968 which sought to prevent the emergence of any new nuclear weapon state, without a concomitant and credible commitment on the part of the existing nuclear weapon states to achieve nuclear disarmament within a reasonable timeframe. India had to stay out of the treaty in order to maintain its nuclear option.
- The NPT was followed by the 1971 Bangladesh War and an unwelcome Sino-US axis targeting India. The appearance of the USS *Enterprise* in the Bay of Bengal heightened India's sense of vulnerability.

The next phase in the acquisition of capabilities is also linked to certain new developments adversely affecting India's security. Reports began to appear that China had delivered a fully tested nuclear bomb design to Pakistan in 1983. (China may have tested a Pakistani weapon at the Lop Nor test site in 1990). Pakistan emerged as a "frontline state" in the war against Soviet forces in Afghanistan in the decade of the 1980s, bringing fresh worries to India's security planners. Its feverish and clandestine pursuit of nuclear weapons capability also heightened threat perceptions in India, particularly when it became clear that the US was not willing to deter Pakistan from the quest, given its equities in the ongoing war. This also marks the phase when Pakistan's nuclear weapon programme, which was led by its civilian political leaders, Zulfiqar Ali Bhutto and later Ghulam Ishaaq Khan, passed into the hands of its military establishment, thus, acquiring an altogether more sinister dimension. Today, Pakistan is the only nuclear-armed state where it is the military and not the civilian political leadership that is in effective control of the nuclear arsenal. During this period, India's sense of vulnerability increased due to the surge in the violent Khalistan movement, encouraged and supported by Pakistan as also the blowback from the ongoing war in Afghanistan. Despite these developments, Prime Minister Rajiv Gandhi launched a major initiative at the United Nations in 1988 to promote a world free of nuclear weapons through the Action Plan on Nuclear Disarmament. This was a serious effort to promote nuclear disarmament which would enable India to avoid the less preferable alternative of itself becoming a nuclear weapon state in order to safeguard its security and its political independence.

The decade of the Nineties constitutes the next phase in India's nuclear trajectory, leading up to the "break-out" in May 1998. This phase was marked by a serious debate within the political leadership over whether the time had come to go ahead with a declared nuclear weapon status or whether the likely international political and economic fallout made this a costly choice. As the decade of the 1990s unfolded, it became abundantly clear that the choice was being forced on India as a consequence of several serious geo-political developments.

What were the drivers during this phase? One, the US emerged as a hyper-power after the demise of the Soviet Union and this severely narrowed India's strategic space. Two, the nuclear weapon states moved to enforce a permanent status on the Nulcear Non-Proliferation (NPT) in 1995, thereby perpetuating the division between nuclear weapon states and non-nuclear weapon states, with oblique threats to use the UN Security Council to sanction and to penalise those countries which resisted the universalisation of the NPT. This would have put India in state of permanent strategic vulnerability to nuclear threat and blackmail. This may have happened during the India-Pakistan tensions in 1990 though the record is ambiguous on this score (Yaqub Khan's visit to Delhi in 1990 is said to have been undertaken to convey the threat of nuclear retaliation against India in case the latter moved its conventional military forces to threaten or to attack Pakistan). During 1991-92, one was also witness to a determined attempt by the US to put serious limits on India's civilian space and missile programme by pressuring Russia under President Yeltsin to deny India the cryogenic engine technology that it needed to upgrade its civilian space capabilities. The precipitating factor proved to be the effort in 1996 to push through a discriminatory Comprehensive Test Ban Treaty The precipitating factor proved to be the effort in 1996 to push through a discriminatory Comprehensive Test Ban Treaty (CTBT), which would have permanently foreclosed India's options.

(CTBT), which would have permanently foreclosed India's options to develop a credible and fully tested nuclear deterrent. These developments meant that India could no longer have any credible assurance of its security in the absence of its own independent nuclear deterrent. It would confront increased vulnerability vis-a-vis its adversaries, its security would have been severely undermined and made its quest for strategic autonomy a mirage. It is against this background that a decision was taken in May 1998 to breach the narrowing nuclear containment ring around the country and assert India's determination to retain its ability to deter threats from states hostile to it and to ensure an environment in which it could pursue its development priorities without disruption. This is clearly articulated in India's Draft Nuclear Doctrine released in August 1999. The official doctrine based mainly on the draft was adopted in January 2003, but its full text has not been shared with the public.

It is important to keep this historical perspective in mind because the nuclear tests carried out in May 1998 were not a mere episode driven by current and largely domestic political compulsions (though this may have influenced the precise timing), but rather the logical and perhaps an even inexorable culmination of a decades-long evolution in strategic thinking, influenced by an increasingly complex and hostile security environment.

The shift to a declared nuclear weapon state posture confronts India with new and more complex challenges. The timing may have also been influenced by geopolitical developments. The end of the Cold War and the rise of China brought a sense of strategic opportunity to India. The collapse of the Soviet Union meant that the US was no longer inimical to Indian interests as it had been during the Cold War years, with India seen as being on the wrong side of the fence. China's emergence as a potential

adversary to the US made a more rapidly growing India an attractive countervailing power, quite apart from the opportunities it offered to US business and industry. India's swift emergence as an Information Technology (IT) power and the rising affluence and influence of the Indian-American community, reinforced the positive shift in American perceptions about India. Therefore, while fully conscious of the adverse fallout from its decision to undertake a series of nuclear tests and to establish itself as a declared nuclear weapon state, India's leaders may also have calculated that such fallout would be temporary and India's growing strategic relevance would eventually overcome such impediments. This judgement has proved to be true in most respects.

There is no doubt that the shift to a declared nuclear weapon state posture confronts India with new and more complex challenges. These challenges involve the nature and structure of the nuclear weapon arsenal as well as delivery assets. India has articulated a nuclear doctrine that is appropriate to the current geo-political environment, is aligned with its existing and projected levels of technological capabilities and affordability and, most importantly, is reflective of India's domestic realities and its value system. The people of India want their leaders to pursue an independent foreign policy, maintain strategic autonomy and safeguard the security of the country and its citizens by having adequate means to deter threats to national sovereignty and territorial integrity. Sustaining democracy within the country is seen as integrally linked to the ability of the state to deliver on these fundamental aspirations. At various stages of India's contemporary history, the Indian state has pursued different strategies to achieve these objectives in a nuclearised, asymmetrical and often hostile regional and global environment. It has had to make difficult choices, including embracing a three-decade-long strategic partnership with the Soviet Union from 1960 to 1990, which helped the country to meet the threat from an implacably hostile and belligerent Pakistan and a China that turned into a threatening and often arrogant adversary, post India's humiliating defeat in the 1962 border war. Those who perennially bemoan India's lack of strategic culture such as the recent *Economist* article, seem strangely reluctant to acknowledge the difficult choices that governments of every persuasion in the country have made, whether in seeking strategic partners, maintaining a nuclear option or eventually exercising that option despite the odds confronting us. That mistakes have been made, that sometimes opportunities have been missed or our judgments were misplaced is undeniable. But if having a strategy means the readiness to make reasoned choices, then India has demonstrated an ability to think and act strategically.

It is against this background that I find somewhat puzzling assertions by some respected security analysts, both Indian and foreign, that India's nuclear weapons programme has been driven by notions of prestige or global standing rather than by considerations of national security. For example, typical of comments from US analysts is the remarkable observation that "India now lacks a credible theory of how nuclear weapons might be used than as an instrument of national pride and propaganda".

India does have a credible theory of how its nuclear weapons may be used and that is spelt out in its nuclear doctrine. One may or may not agree with that doctrine but to claim that India does not have a credible theory about the use of nuclear weapons does not accord with facts. Since January 4, 2003, when India adopted its nuclear doctrine formally at a meeting of the Cabinet Committee on Security (CCS), it has moved to put in place, at a measured pace, a triad of land-based, air-delivered and submarine-based nuclear forces and delivery assets to conform to its declared doctrine of no-first use and retaliation only. It has had to create a command and control infrastructure that can survive a first strike and a fully secure communication system that is reliable and hardened against radiation or electronic interference. A number of redundancies have had to be created to strengthen survivability. India today has a long range ballistic missile capability and is on the road to a submarine-based missile capability. These capabilities will be further improved as time goes on and more resources become available. In all these respects, significant progress has been achieved. To expect that these should have emerged overnight after May1998 is rather naïve. The record since the May 1998 nuclear tests demonstrates quite clearly a sustained and systematic drive to operationalise the various components of the nuclear deterrent in a manner best suited to India's security environment. This is not the record of a state which considers nuclear weapons as "instrument of national pride and propaganda".

There is a similar refrain in Chinese commentaries on India's nuclear weapons programme. Here is a typical Chinese comment:

Unlike China, which was forced to develop its nuclear option under a clear nuclear threat, India has never been faced with an immediate major military or nuclear threat that would require New Delhi to have a nuclear weapon option to ensure its national survival. The acquisition of nuclear weapons appears to have been almost entirely motivated by politics. India seems to have an explicit strategic goal: to be accepted as a world power. And this goal seems to reflect India's deep-rooted belief that nuclear weapons constitute an effective physical signature of world power status, and even a short-cut to this status.

And this extraordinary assessment of India's quest for security in a nuclearised regional and global environment comes from an analyst of a country which over the years actively and relentlessly contributed to the clandestine nuclear weapon programme of Pakistan, firstly, by providing it with the design of a tested weapon and, later, by assisting it with developing its missile capabilities, both directly and through its North Korean ally. This is a rare case where a nuclear weapon state has actively promoted the acquisition of nuclear weapon capability by a non-nuclear weapon state, though similar allegations have been made about the US and French assistance to Israel. Chinese assistance to Pakistan's strategic programme continues apace.

Could India ignore the implications of this alliance and the role of Pakistan as a most convenient Chinese proxy to pose a nuclear threat to India? The narrative that I have sketched out does not square with the observation that "India has never been faced with an immediate major military or nuclear threat that would require New Delhi to have a nuclear weapon option to ensure its national survival". And it is rather odd that a representative of a country whose iconic leader Mao Zedong called for "politics in command" can now say that India's nuclear programme has been "almost entirely motivated by politics". Of course, it has been, but not the politics of seeking world power status, as is claimed, but the politics of keeping India and its citizens safe from nuclear threats. We have long been familiar with the Chinese predilection to dismiss India's role in international affairs as that of a pretender too big for its boots, while China's superpower status is, of course, regarded as manifest destiny. One should reject such self-serving assertions.

What is worrying, however, is that this status-seeking argument has been finding an echo among some Indian analysts as well. One analyst recently claimed:

During its long and unfocused nuclear weapons quest, India came to develop a highly self-absorbed approach. This was because India's dominant objective was political and technological prestige, while for every other nuclear weapon state, it was deterrence.

Such sweeping statements show a lack of familiarity with the history of India's nuclear weapons programme, set against the broader political and security backdrop. They also serve to diminish the very legitimacy of India's nuclear weapons status though this may not be the intention. For if deterrence was not the reason for which India became a nuclear weapon state, but only for "political and technological prestige", then why should it have nuclear weapons in the first place? It is clear that at least two legs of the triad referred to in our nuclear doctrine are already in place. If the argument is that India has and does face threats for which a nuclear deterrent is required, but that these have been ignored by successive generations of India's political and security elite, then obviously it must be a mere fortuitous coincidence that we have strayed into a strategic capability. This elite, it is implied, comprehends neither the security threats nor the manner in which this accidental acquisition

of nuclear weapons and delivery capabilities, must be operationalised. This does not square with the facts.

The thesis that India's nuclear deterrent is mostly symbolic is, for some, driven by the perception that India's armed forces are not fully part of the strategic decision-making process and that they play second fiddle to the civilian bureaucracy and the scientific establishment. Even if this perception was true, and, in fact, it is not, one cannot accept that the credibility of India's nuclear deterrence demands management by its military. The very nature of nuclear deterrence as practised by a civilian democracy dictates that decisions relating to the nature and scope of the arsenal, its deployment and use, be anchored in the larger architecture of democratic governance. It is the civilian political leadership that must make judgments about domestic political, social and economic priorities as well as the imperatives imposed by a changing regional and global geo-political environment. The military must be enabled to provide its own perspectives and inputs, just as other segments of the state must do. Undoubtedly, the military's inputs and its advice would have to carry weight, especially in operational matters. But to equate exclusive military management of strategic forces, albeit under the political leadership's overall command, as the sine qua non of deterrence credibility is neither necessary nor desirable. One should certainly encourage better civil-military relations and coordination. It may also be argued that the military's inputs into strategic planning and execution should be enhanced to make India's nuclear deterrent more effective. But one should not equate shortcomings in these respects with the absence of a credible nuclear deterrent.

If we look at the current status of India's nuclear deterrent and its command and control system, it is clear that at least two legs of the triad referred to in our nuclear doctrine are already in place. These include a modest arsenal, nuclear capable aircraft and missiles in fixed underground silos as well as those which are mounted on mobile rail and road-based platforms. These land-based missiles include both the Agni-II (1,500 km) as well as the Agni-III (2,500 km) missiles. The range and accuracy of further versions for example, the Agni-V (5,000 km) which was tested successfully only recently, will improve with the acquisition of further technological capability and experience. The third leg of the triad which is submarine-based, is admittedly work in progress. We need at least three Arihant class nuclear submarines so that at least one will always be at sea. Submarine-based missiles systems have been developed and tested in the form of the Sagarika but these are still relatively short in range. It is expected that a modest sea-based deterrence will be in place by 2015 or 2016. There is also a major Research and Development (R&D) programme which has been in place since 2005, for the development of a new, longer range and more accurate generation of submarine-based missiles which are likely to be ready for deployment around 2020.

The National Command Authority is in charge of India's nuclear deterrent. At its apex is the Political Council which is headed by the Prime Minister and includes all the ministerial members of the Cabinet Committee on Security such as the Ministers of Defence, Home and External Affairs. Below the Political Council is the Executive Council which is headed by the National Security Advisor and includes the Chiefs of the three armed forces and the Commander-in-Chief (C-in-C) of India's Strategic Forces Command, a three-star officer, among others. There is an alternate National Command Authority which would take up the functions of nuclear command in case of any contingency when the established hierarchy is rendered dysfunctional. The NCA has access to radiation hardened and fully secured communication systems where, too, redundancies have been put in place as back-up facilities. Among the nuclear weapon states today, Pakistan is the only country where nuclear assets are under the command and control of the military. In order to support the NCA, a Strategy Programme Staff has been created in the National Security Council Secretariat to carry out general staff work for the National Command Authority. This unit is charged with looking at the reliability and quality of our weapons and delivery systems, collating intelligence on other nuclear weapon states, particularly those in the category of potential adversaries, and working on a perspective plan for India's nuclear deterrent in accordance with a ten-

year cycle. The Strategy Programme Staff has representatives from the three Services, from our science and technology establishment and other experts from related domains, including external affairs. A Strategic Armament Safety Authority has been set up to review and to update storage and transfer procedures for nuclear armaments, including the submarine-based component. It will be responsible for all matters relating to the safety and security of our nuclear and delivery assets at all locations. This will function under the direct authority of the NCA.

The National Command Authority works on a two-person rule for access to armaments and delivery systems.

Regular drills are conducted to examine possible escalatory scenarios, surprise attack scenarios and the efficiency of our response systems under the no first use limitation. Thanks to such repeated and regular drills, the level of confidence in our nuclear deterrent has been strengthened. Specialised units have also been trained and deployed for operation in a nuclearised environment.

These details may be known but I am highlighting them to make the point that while further steps may be required to make our deterrent more robust, it is unhelpful and misleading to peddle the impression that it is dysfunctional, or worse, that it is non-existent.

In much of Western literature, one finds frequent comments about the professional manner in which the Strategic Planning Group, in charge of Pakistan's nuclear assets, is run and how effective and transparent measures have been put in place to ensure the safety and security of these weapons. What is rarely highlighted is that among the nuclear weapon states today, Pakistan is the only country where nuclear assets are under the command and control of the military and it is the military's perceptions and ambitions which govern the development, deployment and use of these weapons. This is a dangerous situation precisely because the military's perceptions are not fully anchored in a larger national political and economic narrative. The pursuit of a more powerful, more effective and more sophisticated nuclear arsenal, dictated by the Pakistani military, may run in parallel with a steadily deteriorating political, social and economic environment. Would it be possible to island an efficiently managed and sophisticated nuclear arsenal amidst an increasingly dysfunctional polity? There is an air of unreality about the often adulatory remarks about the Pakistani military's stewardship of the country's nuclear assets. There are anxieties about its continuing buildup of nuclear weapons and delivery vehicles but these are conveniently ascribed to the threat perceived from India. More recently, Pakistan's relentless build-up of its nuclear arsenal, its refusal to allow the Conference on Disarmament in Geneva to undertake multilateral negotiations on a Fissile Material Cut-Off Treaty (FMCT) and its threat to deploy theatre nuclear weapons to meet a so-called Indian conventional armed thrust across the border have all been laid at the door of the Indo-US civil nuclear agreement, which it is claimed has upset the "nuclear balance" in South Asia. The votaries of non-proliferation in the West have criticised the agreement as having allowed "exceptionalism" in favour of India, which has encouraged a nuclear arms race between India and Pakistan. Pakistan openly demands that it too be given a nuclear deal like India, otherwise it would continue to produce larger quantities of fissile material and push the nuclear threshold even lower in order to retain the credibility of its nuclear deterrent. The exception provided to India rests on India's universally acknowledged and exceptional record as a responsible nuclear state with an unblemished history in non-proliferation as contrasted with Pakistan's equally exceptional record as a source of serial proliferation Pakistani motivation is to dissuade India from contemplating conventional punitive retaliation to sub-conventional but highly destructive and disruptive crossborder terrorist strikes. and in possession of a nuclear programme born in deceit and deception. There is no moral equivalence in this respect between the two countries and this point must be driven home every time Pakistan claims parity. We should not allow such an insidious campaign to affect our proposed membership of the Nuclear Suppliers Groups (NSG) and Missile Technology Control Regime (MTCR).

In dismissing India's nuclear deterrent as driven by pride and prestige, the Pakistani nuclear deterrent is sought to be projected as

somehow more understandable, more justified, because unlike India, it is said to be driven by so-called real security threats. The more shrill the articulation of these imaginary threats, the more justified the rapidly growing Pakistani nuclear arsenal is seen to be in the eyes of some motivated analysts. The next link in the argument would be that if only India could be persuaded to discard its pride and false sense of prestige and status, a strategic restraint regime, if not a non-nuclear regime, between the two sides would become possible and the world relieved from having to deal with the "most dangerous part of the world."

Pakistan's nuclear weapons are certainly focussed in large part on the threat from India, real or imagined. In the present case, the Pakistani motivation is to dissuade India from contemplating conventional punitive retaliation to sub-conventional but highly destructive and disruptive crossborder terrorist strikes such as the horrific 26/11 attack on Mumbai. What Pakistan is signalling to India and to the world is that India should not contemplate retaliation even if there is another Mumbai because Pakistan has lowered the threshold of nuclear use to the theatre level. This is nothing short of nuclear blackmail, no different from the irresponsible behaviour one witnesses in North Korea. It deserves equal condemnation by the international community because it is not just a threat to India but to international peace and security. Should the international community countenance a licence to aid and abet terrorism by a state holding out a threat of nuclear war?

But today, given the evidence available, is it even possible to claim that the so-called Indian threat is the sole motivation which drives Pakistan's nuclear programme?

Let us look at some of the significant shifts that have taken place recently in Pakistan's nuclear posture, taking it from declared "minimum deterrence" to a possible second strike capability.

There is a calculated shift from the earlier generation of enriched uranium nuclear weapons to a newer generation of plutonium weapons.

Plutonium weapons would enable Pakistan to significantly increase the number of weapons in its arsenal, Pakistan is reported to have overtaken India's nuclear weapon inventory and, in a decade, may well surpass those held by Britain, France and China.

Progress has been claimed in the miniaturisation of weapons, enabling their use with cruise missiles and also with a new generation of short range and tactical missiles .This is not yet fully verified but the intent is clear.

Pakistan has steadily pursued the improvement of the range and accuracy of its delivery vehicles, building upon the earlier Chinese models (the Hatf series) and the later North Korean models (the No-dong series). The newer missiles, including the Nasr, are solid-fuelled, which can be launched more speedily than the older liquid fuelled ones.

Pakistan's nuclear programme brings its scientific and technological accomplishments into the limelight. Pakistan repeatedly draws attention to its being the only Islamic country to have a sophisticated nuclear weapons programme. This gives it a special standing in the Islamic world. One should not underestimate the prestige factor in this regard.

These developments are driven by a mindset which seeks parity with, and even overtaking, India, irrespective of the cost this entails. However, they are also driven by the more recent fear that the US may carry out an operation, like the one mounted in May 2011, to kill Osama Bin Laden in Abbotabad, to disable, destroy or confiscate Pakistan's nuclear weapons. The increase in the number of weapons, the planned miniaturisation of warheads and their wider dispersal, are all designed to deter the US from undertaking such an operation. This aspect has acquired increasing salience in Pakistani calculations. Recent articles which claim that the US has contingency plans to take out Pakistan's nuclear weapons in case of a *jihadi* takeover of its government or if the Pakistan Army itself splits into a pro-*jihadi* and an anti-*jihadi* faction, with the danger that the country's nuclear arsenal is no longer in safe and secure hands, must have heightened the paranoia among Pakistan's military and bureaucratic elite.

Pakistan has, nevertheless, projected its nuclear deterrent as solely targeted at India and its strategic doctrine mimics the binary nuclear equation between the US and the Soviet Union which prevailed during the Cold War. But in a world of multiple nuclear actors, there is pervasive uncertainty about how the nuclear dynamic will play itself out even if a nuclear exchange commenced with only two actors. What may be a zero-sum game with two actors may not be so for a third or a fourth actor. For example, the long history of the Sino-Pakistan nuclear nexus determines that China will be a factor influencing security calculations in New Delhi, Islamabad and Washington. How will a nuclear exchange, often posited between India and Pakistan, impact on China, and would India be prudent not to factor that into its nuclear deterrence calculations? In the context of Japan and South Korea, can the nuclear threat posed by North Korea be delinked from China's strategic posture in the region? How would these calculations affect US nuclear posture? And how would Russian strategists react ?It is because of this complexity that notions of flexible response and counter-force targeting, which appeared to have a certain logic in a binary US-Soviet context, lose their relevance in the multidimensional threat scenario which prevails certainly in our region. It is no longer sufficient to analyse the India-Pakistan or India-China nuclear equation only in the bilateral context. Therefore, Pakistan's nuclear behaviour should be a matter of concern not just to India but to the international community. It obviously is for the US though it is usually made out to be a matter for, and related to, Pakistan's relations with India.

It is also this complexity in multiple and interlinked nuclear equations which argues for an early realisation of global nuclear disarmament through multilateral negotiations and India's championing of this cause is not all contradictory to its maintenance of a robust nuclear deterrent in the meantime.

The above background must be kept in mind when evaluating India's continued insistence on the central tenet of its nuclear doctrine i.e., that India will not be the first to use nuclear weapons, but that if it is attacked with such weapons, it would engage in nuclear retaliation which will be massive and designed to inflict unacceptable damage on the adversary. As I have pointed out earlier, the label on India's nuclear doctrine categorically affirms India's belief that its security would be enhanced, not diminished, in a world free of nuclear weapons.

a nuclear weapon used for attacking India, strategic or tactical, is irrelevant from the Indian perspective. A limited nuclear war is a contradiction in terms. Any nuclear exchange, once initiated, would swiftly and inexorably escalate to the strategic level. Pakistan would be prudent not to assume otherwise as it sometimes appears to do, most recently by developing and perhaps deploying theatre nuclear weapons. It would be far better for Pakistan to finally and irreversibly abandon the long-standing policy of using cross-border terrorism as an instrument of state policy and pursue nuclear and conventional confidence-building measures with India which are already on the bilateral agenda. An agreement on no first use of nuclear weapons would be a notable measure following up on the commitment already made by the two countries to maintain a moratorium on nuclear testing.

As would be apparent, in the case of India, it is the security narrative which is the most significant driver of its strategic nuclear capability though India has consistently followed a cautious and restrained approach. India's nuclear doctrine categorically affirms India's belief that its security would be enhanced, not diminished, in a world free of nuclear weapons. The elements of pride and prestige are secondary as they always are in the complex basket of elements that influence strategic choices which countries make.

In my view, the mostly self-serving and misconceived notions about India's nuclear deterrent that have found currency in the recent past, have much to do with the failure on the part of both the state as well as India's strategic community to confront and to refute them. The ease with which motivated assessments and speculative judgments, of the kind I have drawn attention to, invade our own thinking, is deeply troubling.

The secrecy which surrounds our nuclear programme, a legacy of the long years of developing and maintaining strategic capabilities, is now counter-productive. There is not enough data or information that flows from the guardians of our strategic assets to enable reasoned judgments and evaluations. There has been significant progress in the modernisation and operationalisation of our strategic assets, but this is rarely and only anecdotally shared with the public. The result is an information vacuum which then gets occupied by either ill-informed or motivated speculations or assessments. To begin with, I would hope that the government makes public its nuclear doctrine and releases data regularly on what steps have been taken and are being taken to put the requirements of the doctrine in place. It is not necessary to share operational details but an overall survey such as an annual Strategic Posture Review, should be shared with the citizens of the country who, after all, pay for the security which the deterrent is supposed to provide to them. An informed and vigorous debate based on accurate and factual information should be welcomed, because only through such debate can concepts be refined, contingencies identified and the most effective responses formulated. In a democracy, this is critical to upholding a broad consensus on dealing with the complex and constantly evolving security challenges our country confronts.

I thank you for your attention.