

Report on a Workshop on The Draft Indian Nuclear Doctrine

Edited by
Arvind Kumar

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Table of Contents

Foreword	v
Preface	vii
Acknowledgement	xi
1. Introduction	1
2. An Overview on the Draft Indian Nuclear Doctrine	2
3. India's Strategic Thinking in the New Millennium.....	13
4. Notions of Deterrence	15
5. No First- use Policy: Its Genesis in the Indian Context and its Relevance.....	18
6. Does India need the Triad?	21
7. Impact of the Nuclear Doctrine on Conventional Conflicts	22
8. Conclusions and Policy Options	25
Annexure I Draft Indian Nuclear Doctrine	27
Annexure II The Triad: Concept and Features	33
Annexure III Discussion on Questions from an Indian Perspective.....	38
Annexure IV List of Participants.....	41

Foreword

This report by Arvind Kumar on “The Draft Indian Nuclear Doctrine” is based on a Workshop held at this institute shortly after the Government of India released the draft document on the Indian nuclear doctrine in August 1999 for public debate and discussion. The Workshop provided a platform for the academics and members of the strategic community to exchange views on the draft doctrine.

This report, I believe, is the first of its kind to be issued from this part of the world. Achieving strategic autonomy and security is the main focus of the doctrine as seen in this report. The report examines related themes of the draft doctrine including no-first-use policy and deterrence.

The Workshop was sponsored by the Regional Centre for Strategic Studies, Colombo, and I thank Gen. Dipankar Banerjee for his support.

Roddam Narasimha
Director, NIAS

Preface

The Draft Indian Nuclear Doctrine is indeed a remarkable document. Released on August 17, 1999, it is the first time that India has gone public in its security thinking and that too in a major area of defence capability, nuclear strategy. Even though it is a product of deliberation among a group of independent specialists outside the Government who constituted the first National Security Advisory Board, the thought process may be considered as near official as would be feasible under the circumstances. It could even be claimed to represent Governmental view, else the document perhaps would not have been made public in so short a time after it was submitted. Releasing such a document to the public is important. For it is only through informed debate and discussion that vital issues such as security should be decided in a democratic country. Not merely because it is a matter of high concern to the State, but also because very substantial financial effort will be needed to support the doctrine, for which again public support and understanding become essential.

In its own quest for strategic transparency and to promote dialogue and discussion on vital issues of the day, the Regional Centre for Strategic Studies chose this topic as its theme for an alumni meeting in South India. To the National Institute of Advanced Studies and to its eminent Director, Prof Roddam

Narasimha, the Centre owes an enormous debt of gratitude for making this possible. The excellent campus, its idyllic setting and befitting facilities and the eminent scholars on its staff made the effort unique and fulfilling. Particular congratulations go out to Arvind Kumar, a dynamic young alumni of the RCSS and the coordinator of the South Indian Chapter, who took the initiative and made this conference possible. The list of participants at the end of the Book shows the high level of participation, which in turn was reflected in the quality of deliberations at the meeting.

The Draft Nuclear Doctrine states openly to the world India's security concerns and rationalizes in a straight forward and direct manner India's nuclear security goals and objectives. Logically, policy on a nation's security should evolve in distinct stages. First, an analysis of the global and regional security environment, followed by an examination of the nation's interests and from there determining the courses that best serve to achieve those objectives. This may be termed as a strategic review and only when such a process is complete should doctrines emerge to determine the implementation of the agreed course of action. Without a clue to the thinking behind the recommendations, the doctrine stands alone, somewhat lonely and the debate gets stultified. Certain assumptions are made and taken for granted that would surely bear closer scrutiny and examination.

Many issues emerge from an examination of the doctrine. It is to the credit of the conference organisers that these were brought out in the open and discussed in a candid and constructive atmosphere. India is too large and important a country to let its security be dictated by outside powers or external influences. It has to necessarily stand-alone and independently secure its legitimate interests. The lack of a strategic culture and thinking in the nation and a minimum awareness of global security developments make this challenging task. My congratulations once again to the South Indian Chapter of the RCSS and to the National Institute of Advanced Studies for taking this initiative. The result of which is a very interesting and informative monograph highly recommended to a wider public.

March 2001
Colombo

Dipankar Banerjee
Executive Director
Regional Centre for Strategic Studies

Acknowledgement

At the dawn of the new millennium India faces major challenges and problems that can be effectively met and solved only if it revamps its approach to national security, articulates clearly on identifying and advancing its vital interests and behaves as a responsible, reliable and confident state. India needed a set of guidelines on the nuclear front after it exercised its nuclear option during May 1998. India articulated a set of guidelines in the form of a draft Indian nuclear doctrine and released it in August 1999 for public debate and discussion on which future course of action could be based.

The National Institute of Advanced Studies, Bangalore took the initiative for raising the debate and discussion on a number of important pertinent themes related to the draft document on the Indian nuclear doctrine.

This report on the draft Indian nuclear doctrine was made possible because of a generous grant made by the Regional Centre for Strategic Studies (RCSS), Colombo. I am thankful to Gen. Dipankar Banerjee, Executive Director of RCSS for all his help in this regard. I am also beholden to him for sparing his time out of his hectic schedule and making invaluable comments during the Workshop held here in November 1999.

I express my gratitude to the Director, Professor Roddam Narasimha, whose support and guidance have been invaluable in this endeavour. I am grateful to Professor S. Rajagopal, Head, International & Strategic Studies Unit, for his constructive criticism, analytical perception and thought provoking ideas which inform this work. His constant supervision and helpful attitude went a long way towards the successful completion of this report.

Finally, I am thankful to all the participants who attended the Workshop and made it a great success.

Arvind Kumar
Research Associate, NIAS



1. Introduction

On 26 and 27 November 1999, thirty experts, drawn from academia, non-governmental organisations and government, met in their personal capacities in the Workshop to discuss the draft Indian nuclear doctrine. The meeting was hosted by the National Institute of Advanced Studies, Bangalore and sponsored by the Regional Center for Strategic Studies, Colombo.

The discussions focused on the following key areas:

Present status and focus of India's strategic vision; Recent trends in security thinking among the strategic community in India; Does India need a nuclear doctrine at this juncture: If yes, why? And if not, why not? No first use policy; its genesis in the Indian context and relevance; notions of deterrence; the need for a triad; and impact of the nuclear doctrine on conventional conflicts.

The Workshop was divided into seven sessions, each beginning with a few short opening statements from selected experts

followed by discussion amongst the participants. The final session comprised a brief presentation by the rapporteurs on the discussion held on the identified themes and analysed from an Indian perspective.

This report outlines the various discussions held during the Workshop which basically culminated into a spectrum of viewpoints on all the above themes. There was a great deal of agreement on most of the themes among the participants. More views were expressed than can possibly be printed here but it is hoped that the general flavour of the meeting is represented in this document and that minority views have also been given adequate coverage. The objective of the Workshop was also to provide adequate opportunity for young academics to deliberate on such important issues in a transparent manner. A novel feature of the Workshop was the presence of a number of active duty military officers, pursuing advanced military studies and on deputation to scientific establishments.

2. An Overview on the Draft Indian Nuclear Doctrine

The draft Indian nuclear doctrine prepared by the National Security Advisory Board (NSAB) and released by the Government of India on August 17, 1999 for public debate and discussion has evoked reactions all over the world. It was considered important by the Government of India to come up with a doctrine on nuclear issues and hence the task was

entrusted to the NSAB to formulate and devise some of the principles on which the future course of action could be based. The doctrine has also been regarded as the logical conclusion of the nuclear tests India conducted in May 1998.

It is often stated that there is nothing new in the doctrine to discuss. The viewpoint belonging to this school of thought indicates to a lack of new thinking, and considers that whatever Indian strategic thinkers have been arguing for decades has been put together in the form of the doctrine.

The members of the other school of thought think that a doctrine of this nature was an urgent necessity for India. The reasons are that the nuclear weapon states are not committed to global nuclear disarmament, and the current situation prevailing across the Indian borders warrants such a doctrine. Furthermore, it was the desire of the nuclear weapon states themselves that India should come up with a nuclear doctrine and end the ambiguity that they considered was characteristic of the Indian positions on nuclear weapons.

It is correct to say that perhaps for the first time in the world, India has taken a major initiative through making its draft nuclear doctrine public. This is significant in the sense that the Government of India has made everything transparent. There are actually not too many countries which have published a nuclear doctrine formally. The members of the nuclear club

i.e. P-5 certainly have such doctrines. These countries, however, have never published a draft doctrine and asked for people's comments on it. In the case of India, publishing a draft nuclear doctrine for people's comment is not only unusual but extraordinary. It also affirms the self-confidence of India and stresses that, as a nation state, it has made a beginning to assert itself in some of these areas. On the other hand, it also appears unusual in the sense that questions of security have always been debated in the corridors of South Block and perhaps in certain limited research institutions in India.

It was also felt by many that the publication of the draft nuclear doctrine cannot be faulted. The doctrine draft paper has laid down as principles, guidelines with which it would be extremely difficult to disagree. However, there are a whole range of areas and issues that arise regarding the question of implementation, timing and resources in the country. It is pertinent to note Bernard Brodie's statement who said in 1947 that from then onwards, the purpose of the military would not be to win wars but to prevent the occurrence. It was argued that it is incumbent on India in the region to prevent war. It was also believed and argued strongly that the use of nuclear weapons during war cannot be ruled out. One should always keep in mind the horrendous consequences of the use of nuclear weapons in any eventuality.

Various comments have been made on the draft Indian nuclear

doctrine. It would be, however, necessary to understand the meaning of the doctrine. The doctrine is basically an enunciation of principles. It is neither a plan of action nor a system of budgetary allocations.

The set of principles underlying the draft Indian Nuclear Doctrine can be summarised in a few short lines.

Section 1.3 of the draft Indian nuclear doctrine says India will "strenuously guard [its] right of autonomy of decision making in the developmental process and in strategic matters in a world where nuclear weapons for a select few are sought to be legitimised for an indefinite future, and where there is growing complexity and frequency in the use of force for political purposes." In other words the central motivation for the proposed doctrine is strategic *autonomy*. This point is apparently not too well appreciated or understood by the US and Western countries, or even by many Indian analysts. Nuclear weapons are frequently and widely seen as offensive, whereas the point guiding Indian doctrine is the desire for autonomy. In this respect, the Indian position is rather like that of France.

India's stand is also unusual in another respect: it talks about global nuclear disarmament (in section 2.1) even before setting out the doctrine. Whatever comes later in section 2 is thus conditional on the (unfortunately continuing) absence of such disarmament. Given that there is no progress in that direction,

India pursues a policy of credible minimum nuclear deterrence towards potential adversaries. Section 2.3 says:

“India’s peacetime posture aims at convincing any potential aggressor that (a) any threat of use of nuclear weapons against India shall invoke measures to counter the threat, and (b) any nuclear attack on India and its forces shall result in punitive retaliation with nuclear weapons to inflict damage unacceptable to the aggressor.”

The doctrine clearly highlights that India will not be the first to initiate a nuclear strike, but will respond with punitive retaliation should deterrence fail. It makes a strong and categorical “no-first-use” statement. It is, therefore, essential to say that the draft doctrine is defensive and in fact, almost reactive. The main aim of India is to preserve its autonomy. It was felt during the discussion that India’s autonomy is now seen as being under threat. India tried very hard to achieve global nuclear disarmament and it has completely failed in achieving its goal. The thrust of the argument and the inherent meaning in the doctrine is that since India has failed in its mission of achieving global nuclear disarmament, it took the step to weaponise in the interest of ensuring its national security.

The document goes on to propose a policy of maintaining a credible minimum nuclear deterrent for the country. A great deal of discussion has taken place on what constitutes such a

deterrent, and how its acceptance represents a movement of India away from its previously unstated doctrine (“unstated” because it was not openly declared to the rest of the world), called by various such names as non-weaponised, existential or recessed deterrence by foreign analysts trying to guess what the Indian strategy was by inference.

It was also argued that the concept of the deterrence as mentioned in the draft text is nothing new. This concept is certainly not something that has come after nuclear weapons. Deterrence in India’s case means that the potential adversary is discouraged from embarking on an attack by ensuring that the consequences of such attack would be disastrous for the adversary. Hence, it can be said that the doctrine is preventive because it prevents the war. It was also emphasised that India should be seen as capable of launching an attack on its adversary if any eventuality occurs.

It is also important to note from the draft nuclear doctrine that nuclear weapons shall be tightly controlled and decision for use will be taken at the highest political level. The authority to release nuclear weapons for use resides in the person of the Prime Minister of India, or the designated successor. It particularly means that it will not be under military control and will be strictly under civilian control.

The question of the triad as mentioned in the draft text of the doctrine was also highlighted. The draft document says that India retains the options of using land, air and sea based assets as a retaliatory action. It was mentioned that the possession of the triad is basically a logical consequence of the other principles that exist in the doctrine. They are inescapable if other principles are accepted by India, namely, if the no first use principle is accepted then it means that in a way the adversary is first allowed to attack and may try to wipe out all nuclear weapons. In this particular situation how would India be able to assure that it would be in a position to counterattack? India certainly would need missiles of some kind, aircraft and possibly sea-based assets as well. The question may arise as to why India needs all the three. The fact of the matter is that if India is taking defensive as well as reactive posture then it has to be fully equipped with all the required assets. Missiles, aircraft and sea-based assets will be required because aircraft and land-based missiles are vulnerable to first strike. The extraordinary improvements in remote surveillance, with resolutions of less than 1 metre now available from satellite platforms, make it difficult to keep land-based assets from observation. The possession of sea-based assets cannot therefore be ruled out, and indeed is a necessity for maintaining credibility. This does not mean that one maintains all three types of assets at all times. For example the French, whose strategic motivation is similar to India's in some respects, have finally ended up with only sea-based weapons, in a fleet of three or four submarines. But at the

present time it is not logical for India to give up any of the three possible platforms. However, it was also felt that if the policy has to work in the true sense of the term, the potential adversary must be aware of the swiftness of an Indian response. Concern was also expressed about whether India would be able to afford the expense. It has already been mentioned earlier that the doctrine is not a budgetary statement. The doctrine also does not specify any time limit. It was argued that India's S&T and defence budget figures are by international standards rather low. In the mid-90s (till Kargil) India spent less than 2.5 percent of its GNP on defence every year. (The historical mean has been about 3 percent; but declined in the 90s). If the statistics of the defence expenditure in India in the last 20 years is studied then it is found that India has been spending about 3% of its GNP on defence. It is only in the last 8 to 10 years that it has steadily declined. It was suggested during the discussion that if India restores its allocation on defence to roughly about 3% of the GNP, it may not be doing something very different from what it has been doing historically over several decades. Concern was also expressed about the trends in the growth of GNP. Currently, GNP in recent years has been growing at the rate of 6% and it is expected that this rate of growth in GNP would increase and reach a level of 7% to 8%. Hence, it is expected that if India spends 3% on defence and the economy grew at 6% then at the end of the 5 years, India would have 75% more money for defence. The other optimistic projection was that if the

economy grew at the projected rate of 8% then India will have 2.5 times more money than now for defence after 10 years.

The other important point which was discussed is Indian technology development and this is again something which is not sufficiently understood domestically or elsewhere in the world. It was argued that the development of technology in India has been actually very cost effective. The technology development projects in India are very cheap by international standards. People quite often make a mistake when they take costs from American sources and conclude that it is impossible to achieve anything with low budgets. The total budget of ISRO in 1998 was a little more than 300 million dollars. For keeping 10/12 satellites in orbit, this figure is ridiculously low by Western standards.

Some debate also centred on the background of the doctrine. It was argued that India has been trying very hard to promote and achieve global nuclear disarmament since its independence in 1947. Time and again India has made proposals on how disarmament may be achieved, but they have been usually ignored, sometimes even dismissed with contempt. The history of these attempts has been sad, tragic and frustrating: Indian proposals have never been taken seriously. In 1995 the NPT was indefinitely extended which indicated that the P-5 wanted their monopoly and control to last for ever. Surprisingly, Japan (which constantly makes strong emotive statements

about nuclear weapons, as they are the sole victims to-date), has consistently opposed all Indian initiatives and resolutions at the United Nations. By 1995-1996 India was ploughing a lonely furrow, the rest of the world having somehow been persuaded or forced to throw its lot with the P-5. The indefinite extension of NPT showed that India's efforts had been a wild goose chase.

If one looks at the history of the development of nuclear policy in India, it has been basically reactive, never aggressive. The Chinese invasion of 1962 and their explosion of 1964 led to the first reconsideration of India's nuclear programme. The 1974 Indian explosion at Pokharan was a reaction to the intrusion of the USS *Enterprise* in the Bay of Bengal during the Bangladesh War of 1971. It is a well known fact that during the 1960's and 1970's the United States Government made a number of statements regarding the actual use of nuclear weapons and a number of nations were bullied. Here is a statement from a 1995 Pugwash meeting: "In the last 50 years the use of nuclear weapons was explicitly threatened occasionally, implicitly threatened continuously, seriously contemplated more often than will ever be admitted and narrowly averted more than once." A former US Secretary of State (Alexander Haig) has said, "Fission and fusion explosives are tools used daily all over the world in US diplomacy." Given this situation, a country like India which considers preservation of its autonomy essential had to react in a different way.

It was felt during the discussion that many bodies at various times have made statements about nuclear disarmament, including the International Court of Justice, the Canberra Commission, and a host of other distinguished international groups. However, it is manifest from the response of nuclear weapon states to these proposals that they do not take nuclear disarmament seriously. Everybody knows that China supplies nuclear materials to Pakistan, and has perhaps even conducted a test for them; China also supplies missiles through North Korea. But, China's colleagues in the P-5 club have always looked away. The P-5 moves on nuclear nonproliferation are thus just not credible, and cannot be taken seriously. The US continues to think that its security position requires a strong deterrent, but others' do not! Second, they are still unwilling to subscribe to a no-first use policy.

It is generally believed that India is now making a departure from its earlier policies regarding non-violence, as preached by Mahatma Gandhi. It was felt that Gandhi's views on non-violence has not been properly understood by many. Gandhi's views on non-violence can be quoted from the 'Gandhi Reader' (1920). According to Gandhi, "if there is a choice between cowardice and violence, he would advise violence It is preferable that India should resort to arms in order to defend its honour than that she should remain a helpless witness to her own dishonour." Hence, it can be said that the draft Indian nuclear doctrine does not represent a departure from the basic

Indian view. It is on the other hand a desperate attempt to recapture a sense of national autonomy, which has been slowly declining over the years owing to the policies of the P-5.

3. India's strategic thinking in the new millennium

Most of the participants opined that India lacked a coherent strategic doctrine in the past which they thought was unusual. There was an absence of a well-defined and articulated threat perception mechanism which quite often led to a very disturbing situation. There was also a consensus among the participants that till the publication of a draft nuclear doctrine, strategic thinking was particularly absent and was ad hoc at best.

It was also argued that the Nehruvian era also lacked a definite articulation of any doctrine. Discussions on policy matters were restricted to South Block and a handful of people. Strategic thinking in India never evolved after proper analysis and assessment of the security requirement. Ambiguity has been the hallmark of India's policies in the last fifty years.

However, the participants felt that after India conducted and exercised its nuclear options, there has been a perceptible change in our thinking. It was argued in detail whether the nuclear tests have changed the strategic thinking in India. The publication of a draft Indian nuclear doctrine itself is a positive sign of changed thinking in India. The Indian government

made a number of statements after the nuclear tests which to a great extent indicate consistent thinking and these statements lay the foundation for a well-articulated strategic and nuclear doctrine. These statements include a credible minimum deterrence; a no first-use doctrine and non-use of nuclear weapons against non-nuclear states; a moratorium on testing and sufficient hints of not coming in the way of CTBT; and willingness to participate in the Fissile Material Cut-off Treaty negotiation process at the Conference on Disarmament, Geneva.

Despite the draft Indian nuclear doctrine not being a policy document, it has articulated some of the postures on which Indian strategic thinking could be based in the new millennium. The nuclear postures mentioned in the draft doctrine are discussed elsewhere in this report. Participants also felt that strategic thinking is a highly dynamic concept that is open to broad analysis and discussion. It was also emphasised that India needs to have its own autonomous domestic and international variables that would sustain its future policies and thinking. There is also a need to build a mechanism based on institutional structure which would help in coordinating national security policy. It is expected that the new millennium may see a quantum change in the security perceptions of India's strategic thinking. The publication of the draft Indian nuclear doctrine by the Government of India has provided sufficient impetus for public debates and discussions worldwide.

4. Notions of Deterrence

In the light of relations between India and Pakistan, and regional security and instability, the role of nuclear weapons in the context of nuclear deterrence were discussed. Discussions were held on options of pre-determined/unacceptable damage in the context of certain existing realities pertaining to India vis-a-vis Pakistan and China. Dissuading an adversary from initiating an attack because of certain retaliation inflicting unacceptable damage or pre-determined damage has been the hallmark of the different connotations of deterrence. Most of the participants felt that the concept of nuclear deterrence has to be contrasted with that of nuclear defence (i.e., the strategy and forces for limiting damage if deterrence fails). Some believed that an effective nuclear defence of missiles in hardened silos also would have a deterrent effect by making it less certain that an adversary could achieve a disabling "first strike".

There was wide agreement that nuclear deterrence depends on successful survival and an effective retaliatory strike. The threat of retaliation is what prevents the other side from launching an attack in the first place. If the retaliation is likely to be devastating, then any potential attacker must weigh the threat of retaliation against the gains of striking first.

India has committed itself to a "credible minimum deterrent". There was a general feeling in the meeting that India's

deterrence posture is not targeted towards any particular country. However, it was felt that China and Pakistan are the main concerns. It is not at all necessary to quantify India's minimum requirements. It is wrong and immoral on the part of the P-5 to pressurise India on this account. It was argued that deterrence requires Indian forces to be viewed by enemy leadership as capable of inflicting unacceptable damage and thus effectively deny them the option to use nuclear weapons first.

There have been varying opinions on the deterrence of the cold war period. Some consider that the deterrence has worked and some think that nuclear weapons are of 'no use' and in reality have no value. Concern was expressed whether the nuclear tests have succeeded in deterring the adversary or not. There was a discussion in the meeting over Pakistan's statements on first use. India has committed itself to no-first use of nuclear weapons, whereas, due to conventional arms inferiority, Pakistan could use nuclear weapons first in a conflict. Pakistan has made it quite clear that it will not sign a no-first-use agreement. It was made clear that no-first-use policy strengthens the concept of deterrence. The restraint shown by India during the Kargil imbroglio is a case in point. The principal purpose of acquiring nuclear weapons for India is to prevent other major powers from trying to blackmail India. The only function of nuclear weapons is to deter the use of these weapons by others against our nation and block the prospects of coercive nuclear diplomacy against it.

Generally speaking, nuclear weapons cannot serve any purpose other than this.

Some debate centred on the linkages of nuclear deterrence with arms control, non-proliferation and disarmament. It was also argued by many participants that the draft nuclear doctrine is silent on the issues of chemical and biological weapons. Others drew attention to the hypothetical situation where these chemical and biological weapons could be used against India and the failure of the deterrence strategy. The opinion of some experts was that India needs to devise a definite strategy in such an eventuality.

There was wide agreement that deterrence has a psychological component. The meeting on the other hand also considered that the no-first-use policy possibly has weakened the concept of deterrence and there was a perception that it might lead to an arms race in the region. The opinion of some experts was that there is still scope for preventing full-scale weaponisation both in India and Pakistan and perhaps the previous position of nuclear ambiguity served the interests better for both the nations. The potential for war between India and Pakistan also formed a part of the debate. The disturbances perpetuated by Pakistan across the border were a case in point.

The fundamental issue of how to deter aggression formed part of the discussion. Some felt that the notion of deterrence as

spelt out in the draft doctrine was not threat specific. How to deter can be answered only in the context of who is to be deterred. Obviously, the prescriptions to deter Pakistan and China cannot be the same. While it was felt that since India has only a retaliatory policy, the will to use nuclear weapons cannot be doubted. But credibility is affected by the external world-view that India's second strike capability, especially against China, presently lacks muscle due to lack of adequate delivery capability. Even assuming that India develops an ICBM capability, China's head-start and plans to develop and modernise its nuclear forces to counter the US could still fuel an Sino-Indo-Pak arms race. Alternatively, the Indian force would lack credibility to withstand a Chinese first strike. This argument was countered by the logic that in case of nuclear weapons, the mere creation of uncertainty regarding the success of a first strike was enough to deter an adversary. For what political price could be worth the risk of even one major city being annihilated? India therefore does not need to match any adversary's development of nuclear capability weapon- by- weapon, but must instead aim at a force structure that is capable of creating and planting an element of doubt regarding the success of the first strike.

5. No-first-use policy: Its genesis and relevance in the Indian context

No-first-use (NFU) policy has been made one of the important pillars of the draft nuclear doctrine. It is pertinent to point out

here that Indian nuclear policy has always been defensive, even reactive. The Indian advocacy of a NFU with respect to nuclear weapons dates back to 1978 when India introduced a draft resolution on this subject at the United Nations General Assembly. The draft also requested all States to submit to the General Assembly proposals concerning the non-use of nuclear weapons and the avoidance of nuclear war in order that an international convention on the subject might be formulated through further discussion and agreement. However, this resolution did not receive any support from the nuclear weapon states. NFU was also the basis of the Geneva Protocol of 1925 for chemical weapons, a principle where the aggressor possessed the weapon and the victim did not. The famous Rajiv Gandhi action plan (1988) which was presented to the UN special session on disarmament also contained the concept of NFU. Basically, this policy demonstrates restraint and communicates confidence in one's power to retaliate.

NFU was a hot topic for discussion with particular reference to the difficulty that India might face in the existing security scenario in the Indian subcontinent. It was explained that India should not restrict itself to NFU in the existing international scenario because there may be a lack of adequate infrastructure for command, control, communication and intelligence systems. There were differing perspectives on these issues.

Some of the participants felt that the NFU will be a good policy because the probability of an actual nuclear exchange goes down and India may gain sufficient time to build or acquire the required infrastructure in terms of e.g. ICBMs. India will also have to absorb the first strike and should be fully equipped with the second strike capability for this scenario.

There was, however, general agreement among participants that even if India adheres to NFU, it will simply be an undertaking, with no guarantee that it will be observed to the limit. In any case, it cannot be an irrevocable declaration. The policy can be changed any time that India wants to change it.

Some experts felt that NFU is certainly more than a paper commitment and that under the NFU, India will be placing its nuclear weapons in a “de-mated” posture. De-mating basically means that the warheads would be separated from the delivery vehicles (recessed deterrence). There was also a feeling that the credibility of a NFU is very low when the strategic stakes are high in the existing security scenario in the South Asian region. India’s policy, to have the strength of a giant but not to use like one, sounds ironical.

The majority considered the NFU policy as a sound pillar of the doctrine, both politically and morally. It was also pointed out that NFU is natural extension of India’s moral and political stand regarding global nuclear disarmament. Some felt that

India must press for NFU treaty among the nuclear weapon states as a major step in the disarmament process. China, however, has been doing this but without success.

6. Does India need the triad?

The triad (mobile land-based missiles, air assets and sea-based assets) was a hot topic for discussion, with particular reference to the difficulty that India might face in achieving this in relation to its current technological status. Opinions were divided on the necessity for a triad. One view was that the issue of triad was not a doctrinal one and belonged to the realm of nuclear strategy. The prescription of a triad in the doctrine, according to this view, has merely raised fears about the intended size of India’s nuclear arsenal. It has also reduced the credibility of the force structure because of India’s lack of demonstrated capability in producing the sea-based deterrent and provided an avoidable point for critics to capitalise on. Some felt a dyad would have strengthened credibility. Others opined that the triad was an absolute necessity for second strike capability and that the Indian scientific community can positively face this challenge. Given adequate resources, India could have a triad within a reasonable time frame. It was felt that India’s geographic location also warrants triad capability. (For details about the features and concept of triad, see Annexure II).

7. Impact of the nuclear doctrine on conventional conflicts

Bernard Brodie, a few months after the explosion of the first atomic bomb, recognized that “thus far the chief purpose of the military establishment had been to win wars. From now on its chief purpose must be to avert them”. Brodie noted a shift from the Clausewitzian notion of war as a political option to the notion of war as the political objective.

This implied a reconceptualisation of national security. Before the nuclear era, nations could find security by using military force against each other. Now with nations arming themselves with nuclear weapons, only devastation could be the result of their use. The implication was that the approach required in a nuclear environment to achieve security was vastly different from the requirements for security in the conventional realm. In the conventional realm, the struggle over power and search for security occasionally required competition on the battlefield. According to Brodie’s logic, that same struggle for power and security necessitates avoiding the battlefield when nuclear weapons are present.

The practices associated with conventional warfare are distinct from the laws, theories and applications that should guide thinking about nuclear conflict. In essence, there are two definable paradigms of military security. One in which the organizing construct rests on preparing to fight and win a war,

another in which war avoidance is the underlying goal of military preparations. What is intriguing about the cold war experience is that both the nuclear and the conventional paradigms on war coexisted simultaneously. While super-power relations were captured by the logic of the nuclear paradigm, they were not immune from the applications and thinking dominant in the conventional paradigm.

What does this line of thinking imply for India and its armed forces? Today, a triangular nuclear situation prevails in the sub-continent, Sino-Indian and Indo-Pak. Undoubtedly there is more cause for concern in the Indo-Pak situation than the Sino-Indian, due to the present state of political situation post-Kargil. It is interesting to examine the impact of the nuclear situation on the Kargil conflict. In terms of deterrence, one could term it as a failure of conventional deterrence, as Pakistan exploited the opportunity available by clandestinely occupying, unopposed, the unoccupied and inhospitable Kargil heights. However, it could be argued that the nuclear situation had emboldened the Pakistanis, for they believed that it would prevent India from taking any strong measures, due to fears of escalation into the nuclear realm. However, this belief was apparently shaken when India used air power and mobilized its forces. The fear of escalation could therefore be an influential reason for Pakistan’s capitulation and final withdrawal. However none of this can be empirically proved and will have to await the unfolding of facts at a later date. But the fact that the nuclear situation had

induced caution on both sides is quite evident if one considers India's decision not to cross the Line of Control, in contrast to the 1965 war when India reacted to large-scale infiltration by opening another front.

It is therefore apparent that in the existing nuclear era, military decision-making has to be increasingly concerned with political ramifications. The fear of a nuclear war will influence political decision making in conflict situations. Political leaders will have to understand that military forces once unleashed develop a logic of their own that cannot easily be contained. Escalation will most likely result from inadvertence rather than from a deliberate act. A conventional war snowballing into a nuclear war is a real danger that cannot be ignored. It is impossible to distinguish a conventional warhead on a missile from a nuclear one. Conventional wars can also therefore be dangerous and strong conventional forces should as far as possible provide deterrence and help raise the nuclear threshold. The call for strong conventional forces in India's nuclear doctrine is therefore justified.

Future conflicts between nuclear-armed powers in South Asia will therefore assume forms that are within the Low Intensity Conflict realm. Counter insurgency, local border wars and terrorism will be the increasing form of warfare that the Indian state will have to confront.

The discussion that ensued was focused on two issues. One was for the need for strong conventional forces. The overwhelming majority was of the opinion that India requires strong conventional forces to defend against both Pakistan and China. A vocal majority felt that substantial improvement in the relations with China was possible. This became the second issue. While some felt that India's unresolved border dispute with China was cause for future security concerns, others felt that substantial progress was being made in Sino-Indian talks and we could move away from considering China as posing a major strategic threat.

8. Conclusions and Policy Options

There was unanimity among the participants regarding the need for a doctrine. The majority however felt that the nuclear doctrine should have been preceded by a comprehensive security doctrine. The nuclear doctrine should then have been its natural by-product. In the absence of a security doctrine, the nuclear doctrine seems to convey that it is the fulcrum of India's defence policy, which it should not be. The security doctrine should decide the balance that ought to be maintained between nuclear and conventional forces. There is need to take a prognostic approach with the consideration of alternative scenarios.

The majority view was that in view of the present state of weapons inventory (minimum) there was no need for India to imitate the West in the sophistication of their command and control system. Some felt that even the response to a nuclear strike need not be immediate and a hair-trigger alert status of the system should be avoided. The fact that the command and control system is likely to be the weakest link in the ability to achieve a second strike capability was highlighted as one of the most formidable challenges.

Participants pointed to the need to consider the indigenous development of triad in a phased manner, and agreed that India should equip itself with all the necessary modern technologies which would be required in case of any eventuality. The quantification of the minimum credible nuclear deterrence is unwarranted. An arsenal can be kept to the minimum possible only if its survival can be assured against repeated attrition attacks. It was pointed out that the minimality of the arsenal is related to its survival and hence there is certainly a need for a strategic triad including sea-based systems.

ANNEXURE - I
**Draft Report of National Security Advisory Board
on Indian Nuclear Doctrine**

August 17, 1999

Preamble

- 1.1. The use of nuclear weapons in particular as well as other weapons of mass destruction constitutes the gravest threat to humanity and to peace and stability in the international system. Unlike the other two categories of weapons of mass destruction, biological and chemical weapons which have been outlawed by international treaties, nuclear weapons remain instruments for national and collective security, the possession of which on a selective basis has been sought to be legitimised through permanent extension of the Nuclear Non-proliferation Treaty (NPT) in May 1995. Nuclear weapon states have asserted that they will continue to rely on nuclear weapons with some of them adopting policies to use them even in a non-nuclear context. These developments amount to virtual abandonment of nuclear disarmament. This is a serious setback to the struggle of the international community to abolish weapons of mass destruction.
- 1.2. India's primary objective is to achieve economic, political, social, scientific and technological development within a peaceful and democratic framework. This requires an environment of durable peace and insurance against potential risks to peace and stability. It will be India's endeavour to proceed towards this overall objective in cooperation with the global democratic trends and to play a constructive role in advancing the international system toward a just, peaceful and equitable order.
- 1.3. Autonomy of decision making in the developmental process and in strategic matters is an inalienable democratic right of the Indian

people. India will strenuously guard this right in a world where nuclear weapons for a select few are sought to be legitimised for an indefinite future, and where there is growing complexity and frequency in the use of force for political purposes.

- 1.4. India's security is an integral component of its development process. India continuously aims at promoting an ever-expanding area of peace and stability around it so that developmental priorities can be pursued without disruption.
- 1.5. However, the very existence of offensive doctrine pertaining to the first use of nuclear weapons and the insistence of some nuclear weapons states on the legitimacy of their use even against non-nuclear weapon countries constitute a threat to peace, stability and sovereignty of states.
- 1.6. This document outlines the broad principles for the development, deployment and employment of India's nuclear forces. Details of policy and strategy concerning force structures, deployment and employment of nuclear forces will flow from this framework and will be laid down separately and kept under constant review.

2. Objectives

- 2.1. In the absence of global nuclear disarmament India's strategic interests require effective, credible nuclear deterrence and adequate retaliatory capability should deterrence fail. This is consistent with the UN Charter, which sanctions the right of self-defence.
- 2.2. The requirements of deterrence should be carefully weighed in the design of Indian nuclear forces and in the strategy to provide for a level of capability consistent with maximum credibility, survivability, effectiveness, safety and security.

- 2.3. India shall pursue a doctrine of credible minimum nuclear deterrence. In this policy of "retaliation only", the survivability of our arsenal is critical. This is a dynamic concept related to the strategic environment, technological imperatives and the needs of national security. The actual size components, deployment and employment of nuclear forces will be decided in the light of these factors. India's peacetime posture aims at convincing any potential aggressor that :
 - (a) any threat of use of nuclear weapons against India shall invoke measures to counter the threat: and
 - (b) any nuclear attack on India and its forces shall result in punitive retaliation with nuclear weapons to inflict damage unacceptable to the aggressor.
- 2.4. The fundamental purpose of Indian nuclear weapons is to deter the use and threat of use of nuclear weapons by any State or entity against India and its forces. India will not be the first to initiate a nuclear strike, but will respond with punitive retaliation should deterrence fail.
- 2.5. India will not resort to the use or threat of use of nuclear weapons against States which do not possess nuclear weapons, or are not aligned with nuclear weapon powers.
- 2.6. Deterrence requires that India maintain:
 - (a) Sufficient, survivable and operationally prepared nuclear forces,
 - (b) a robust command and control system,
 - (c) effective intelligence and early warning capabilities, and
 - (d) comprehensive planning and training for operations in line with the strategy, and
 - (e) the will to employ nuclear forces and weapons
- 2.7. Highly effective conventional military capabilities shall be maintained to raise the threshold of outbreak both of conventional military conflict as well as that of threat or use of nuclear weapons.

3. Nuclear Forces

- 3.1. India's nuclear forces will be effective, enduring, diverse, flexible, and responsive to the requirements in accordance with the concept of credible minimum deterrence. These forces will be based on a triad of aircraft, mobile land-based missiles and sea-based assets in keeping with the objectives outlined above. Survivability of the forces will be enhanced by a combination of multiple redundant systems, mobility, dispersion and deception.
- 3.2. The doctrine envisages assured capability to shift from peacetime deployment to fully employable forces in the shortest possible time, and the ability to retaliate effectively even in a case of significant degradation by hostile strikes.

4. Credibility and Survivability

The following principles are central to India's nuclear deterrent

- 4.1. Credibility: Any adversary must know that India can and will retaliate with sufficient nuclear weapons to inflict destruction and punishment that the aggressor will find unacceptable if nuclear weapons are used against India and its forces.
- 4.2. Effectiveness: The efficacy of India's nuclear deterrent be maximised through synergy among all elements involving reliability, timeliness, accuracy and weight of the attack.
- 4.3. Survivability:
- (i) India's nuclear forces and their command and control shall be organised for very high survivability against surprise attacks and for rapid punitive response. They shall be designed and deployed to ensure survival against a first strike and to endure repetitive attrition attempts with adequate retaliatory capabilities for a punishing strike which would be unacceptable to the aggressor.

- (ii) Procedures for the continuity of nuclear command and control shall ensure a continuing capability to effectively employ nuclear weapons.

5. Command and Control

- 5.1. Nuclear weapons shall be tightly controlled and released for use at the highest political level. The authority to release nuclear weapons for use resides in the person of the Prime Minister of India, or the designated successor(s).
- 5.2. An effective and survivable command and control system with requisite flexibility and responsiveness shall be in place. An integrated operational plan, or a series of sequential plans, predicated on strategic objectives and a targeting policy shall form part of the system.
- 5.3. For effective employment, the unity of command and control of nuclear forces including dual capable delivery systems shall be ensured.
- 5.4. The survivability of the nuclear arsenal and effective command, control, communications, computing, intelligence and information (C412) systems shall be assured.
- 5.5. The Indian defence forces shall be in a position to execute operations in an NBC environment with minimal degradation.
- 5.6. Space-based and other assets shall be created to provide early warning, communications, damage/detonation assessment.

6. Security and Safety

- 6.1. Security: Extraordinary precautions shall be taken to ensure that nuclear weapons, their manufacture, transportation and storage are fully guarded against possible theft, loss, sabotage, damage or unauthorised access or use.
- 6.2. Safety is an absolute requirement and tamper proof procedures and systems shall be instituted to ensure that unauthorised or inadvertent

activation/use of nuclear weapons does not take place and risks of accident are avoided.

- 6.3. Disaster control: India shall develop an appropriate disaster control system capable of handling the unique requirements of potential incidents involving nuclear weapons and materials.

7. Research and Development

- 7.1. India should step up efforts in research and development to keep up with technological advances in this field.
- 7.2. While India is committed to maintain the deployment of a deterrent which is both minimum and credible, it will not accept any restraints on building its R&D capability.

8. Disarmament and Arms Control

- 8.1. Global, verifiable and non-discriminatory nuclear disarmament is a national security objective. India shall continue its efforts to achieve the goal of a nuclear weapon-free world at an early date.
- 8.2. Since no-first use of nuclear weapons is India's basic commitment, every effort shall be made to persuade other States possessing nuclear weapons to join an international treaty banning first use.
- 8.3. Having provided unqualified negative security assurances, India shall work for internationally binding unconditional negative security assurances by nuclear weapon states to non-nuclear weapon states.
- 8.4. Nuclear arms control measures shall be sought as part of national security policy to reduce potential threats and to protect our own capability and its effectiveness.
- 8.5. In view of the very high destructive potential of nuclear weapons, appropriate nuclear risk reduction and confidence building measures shall be sought, negotiated and instituted.

The Triad: Concept and Features

The triad represents the comprehensive development of the three legs of the nuclear deterrent force deploying various systems, namely both land and sea based missiles and bombers with a purpose of developing synergy in action. The triad represents two important developments: (a) in terms of diversification of the nuclear forces available in various modes of deployment with the purpose of survivability and effective retaliatory capacity, and (b) a tri-service role framework whereby the three armed services are propelled to develop their respective platforms for deployment. Such a purpose provides the three armed services coequal status in nuclear decision making and participatory roles in nuclear operations.

The nuclear triad for India represents maturity in the evolution of a credible operational framework that would integrate its conventional forces with the nuclear deterrent. As the Indian nuclear doctrine evolves, the triad would be the focal point in the identification of clear parameters of escalation strategies from conventional deterrence to the nuclear.

The triad in its present form is at its infancy as the development of its arms is being made and would finally present India with a true sense of purpose, autonomy of action and a credible operations framework both in peace time and in crisis.

Rationale for Triad

The triad relies on the following concepts that provide its rationale of action.

Credibility: The credibility of the triad imposes on the adversarial state the full weight and potent capacity with sufficient nuclear weapons of the defending state, the power and will to inflict unacceptable damage, destruction and punishment should the adversarial state resort to nuclear weapons in the first instance.

Effectiveness: The nuclear triad is premised on the principle of synergy among its constituent elements. The synergy of the triad relies on reliability, timeliness, accuracy and the weight of attack of the defending state against any potential adversarial state.

Survivability: The prime advantage of the triad lies in its capacity to survive a first strike. The first strike can be one of surprise and be decapitating in scope. Should one of the legs of the triad be crippled in such a strike, then the principle of survivability presupposes that the other legs of the triad should be able to inflict a second strike against the adversary.

Command, Control, Communication, Computer and Intelligence and Information systems (C4I2): The C4I2 assets are considered vital prerequisites for the survivability and operability of the triad. The triad operates on the principle of integrated and coordinated C4I2 assets that synergise and optimise nuclear operations. However the C4I2 assets are vulnerable to two threats.

Electromagnetic Pulse (EMP): Electromagnetic pulse is a form of energy that is released from a radiational variant of explosions that could cripple all semiconductor electronic chip based systems instantly if a successful first strike is launched against the defending state. An EMP attack can be an air-burst over the nation's capital or the National Command Post. Counter measures include hardening and immunity to EMP bursts/explosions, and are considered vital.

Vulnerability to First Strike: Surviving the first strike of a nuclear adversary is vital to be able to launch a second strike. A first strike will always target the C4I2 assets of the defending State. If the adversarial first strike is successful by 50% then the quantum of C4I2 assets destroyed would be substantial, leaving gaping holes in the defending state's C4I2 assets. Such damage would be difficult for the defending state to recover from and retaliate.

The above issues are quite pertinent for India since India proposes to adopt the no-first-use posture and relies on the premise of a minimum nuclear deterrent.

Arithmetic, besides the issue of sufficient survivable nuclear forces in a post-first situation, and the ability to prepare for a targeting strategy, are issues of vital consideration.

C4I2 entails that India should develop a National Command Post (NCP) that should be survivable so that the chain of command be intact despite the first strike. If the nerve centres are all located in New Delhi and if the capital is the target of a decapitating first strike, the level of vulnerability rises in dramatic proportions. This has to be treated in correlation with the proximal distances India has with its nuclear neighbours (Pakistan and China) and the correspondingly short flight times of the missiles, and the time taken to react in the form of a second strike.

C4I2 entails the dual key operational codes for the executive authority as well as the missile officers. This is vital for all the three legs of the Triad as this will prevent accidental launches and unauthorized use. More importantly such safety procedures will be crucial during times of crisis when inadvertent launches are possible.

Inherent in all these is the need for a comprehensive and extremely reliable surveillance system that carefully detects missile launches, which is crucial for this process.

As the Indian and Pakistan nuclear forces are in the initial stages of evolution, it is vital that certain critical safety measures are adopted, such as environmental sensing devices (ESD), permissive action links (PALS) and insensitive high explosives (IHE). These technologies need appropriate application because of their utility in enhancing nuclear safety.

C4I2 prepares the triad for a sequence in readiness. Apart from peacetime deployment and de-alert, C4I2 with proper early warning provides the triad sufficient warning for an impending attack.

C4I2 assets also provide for omni-directional targeting options for the triad.

Features of Triad

The following features of the triad highlight its comprehensive nature.

Land ICBMS/MRBMS/SRBMS:

- Full target coverage;
- High degree of accuracy;
- Assured ballistic penetration;
- Rapid re-targeting capability;
- Constant survivable command and control;
- Highest degree of reliability (98%);
- High degree of alert;
- Hardened silos/mobile launch possibilities;
- Camouflage/cold launches with silo refill capability;
- Post attack survivability;
- Quickest reaction time; and
- Low operating costs.

SEA:SLBMS/SLCMS:

- Highest degree of survivability (60% of focus at sea); submerged presence;
- Assured ballistic/ assured target coverage by SLCMS;
- High degree of reliability;
- Ability to survive from initial attack;
- Invulnerable to detection or attack/camouflage;
- Survivability of forces on alert 30%;
- Recallable after take-off;
- Flexible targeting to include mobile targets;
- Targets of opportunity/multiple targets separated by long distances;
- Highest degree of accuracy; and
- Vulnerable to air defences.

Trends in the Nuclear Triad World Wide

Trends in strategy, technology and policy in the Post-Cold War period show that the triad of the nuclear powers is being transformed.

French and British nuclear forces are now moving toward a two-leg nuclear force structure. The Indian nuclear triad has to contend with the impact of the revolution in military affairs (RMA) technologies and their influence in the evolution of the triad.

The triad and the doctrine of deterrence are now faced with the prospects of change and transformation world-wide. India should envision possibilities of nuclear aging and with possible changes in the role of nuclear weapons.

The triad has the prospects of modernisation and maintenance, and technological upkeep is also a factor.

The role and the scope of tactical nuclear weapons in the future of the triad and in India's military strategy need examination. Modernisation and technological innovation in C4I2 are crucial to the survivability of the triad. The triad has to be linked with nuclear targeting options.

ANNEXURE - III

Discussion on Questions from an Indian Perspective

What are the genuine security concerns of the West/P-5 ?

The views expressed on this question varied widely. It ranged from a view that India should not concern itself with the concerns of the West or P-5, and the question was wrongly phrased, to the predominant view that the West would seek to perpetuate the status quo in terms of control of resources and technology to facilitate the continued strengthening of their clout in international affairs. Any steps to redress the existing imbalance in North-South development that threatened the economic and military balance would be cause for concern to the West. Regarding P5, the majority opined that its main concern was the preservation of its nuclear monopoly.

Is it in India's interest to become a "Subsidiary State" of the US Empire? If so, how should India go about it and at what costs?

The question was felt as insulting to Indian self-respect. One participant felt that India could pretend to be a subsidiary State and reap the benefits with limited compromise of national autonomy.

If India chooses to persist in its search for strategic, economic, political and cultural autonomy, how should India go about it?

Self reliance and skillful diplomacy was considered the key to autonomy. But there was need to recognise the limitations to autonomy in an increasingly inter-dependent world. Autonomy must therefore be sensibly interpreted within the framework of trends in globalisation.

Are there lessons from the French experience in India's quest for autonomy?

While some felt that the French experience could provide some lessons for India, others felt that the French experience might not provide any lessons to India because of major differences in the contextual situation. France's quest for autonomy was from an alliance system. India's

contextual situation is different and its quest for autonomy is within a regional and global system.

What are the roots of Western dominationism, how can India handle it?

The general view was that the roots of Western dominationism lay in their technological and military supremacy. This gave them a psychological ascendancy and also leadership in vital areas. Some felt that India's handling of this dominationism must include adopting a cooperative approach which would help in narrowing the scientific gap by optimum utilisation of India's scientific manpower. One view expressed was that India's quest for tackling Western dominationism must not detract the Indian focus from the real and immediate concerns of poverty alleviation, education, health and social inequality, and the plethora of other problems that are required to be tackled urgently.

If the US were to weigh its Indian option versus the Chinese, what would be its analysis? What are the pluses and minuses of the two countries as the West perceives the option?

The US would view both as two important markets that they must have access to, in order to sustain US economic interests. Ideologically, there is closer affinity between India and US, as they are the two largest democracies of the world. China's centralised system of governance makes it easier for it to implement reforms. The US therefore would find it easier to deal with the Chinese in terms of achieving economic results, whereas reforms in India are subject to political pressures that are neither easily predictable nor suitably contained.

With the potential to emerge as an economic colossus and military superpower, the US would also see China as a long-term threat to the U.S. global interests. The U.S. does not perceive India as an emergent long-term threat to their interests. On the other hand they could view India as a long-term strategic ally. In sum, though relatively China would be economically attractive to the US, politically India would be a better bet for the US.

How can India propagate a more pacifist, non-dominationist world view in the West?

Some felt that the NGO's, the green lobby and the Indian diaspora were the best medium to propagate a pacifist Indian image. Diplomatic channels were also considered as an effective medium that must be utilised fully. One participant however felt there was no need to get such certificates from the West. Another participant felt that in the present context, the best pacifist message that could be sent to the West was for India to announce a policy of nuclear non-weaponisation.

ANNEXURE - IV

List of Participants

Maj. Gen. (Retd.) Dipankar Banerjee

Executive Director
Regional Center for Strategic Studies
2, Elibank Road
Colombo 5, Sri Lanka

Ms. Ashu Bhatia

Scientist E
Center for Air Borne Systems (CABS)
Dept. of Defence R&D, Ministry of Defence
Belur, Yemalur Post,
Bangalore - 560 037, Karnataka

Mr. S. Gopal, I.P.S. (Retd.)

Former Special Secretary
760 Block 6, 17th H Main
Koramangala
Bangalore - 560 095, Karnataka

Dr. V. Yoga Jyotsna

Reader
Department of Political Science
Osmania University
Secundarabad, Andhra Pradesh

Col. Kapoor

Research Scholar
Department of Defence and Strategic Studies
University of Pune
Ganeshkhind, Pune - 411 107, Maharashtra

Arvind Kumar

Research Associate
International and Strategic Studies Unit
National Institute of Advanced Studies
Indian Institute of Science Campus
Bangalore - 560 012, Karnataka

Dr. R. Madhanagopal

Associate Professor
Department of Political Science
Madurai Kamraj University
Madurai, Tamil Nadu

Dr. Anindyo Majumdar

Assistant Professor
Department of International Relations
Jadavpur University
Calcutta, West Bengal

Dr. Gopalji Malviya

Professor
Department of Defence & Strategic Studies
University of Madras, Chepauk
Chennai - 600 005, Tamil Nadu

Mr. V. Manikantan

Department of Politics
University of Kerala
Kariavattom - 695 581, Kerala

Group Captain M. Matheswaran

Research Scholar
Department of Defence & Strategic Studies
University of Madras, Chepauk
Chennai - 600 005, Tamil Nadu

Col. Prakash Menon

Research Scholar
Department of Defence & Strategic Studies
University of Madras, Chepauk
Chennai - 600 005, Tamil Nadu

Dr. P. Murthy

Associate Professor
School of International Studies
Pondicherry University
R.V. Nagar, Pondicherry - 605 014

Prof. Roddam Narasimha

Director NIAS
Indian Institute of Science Campus
Bangalore - 560 012, Karnataka

Mr. Lawrence Prabhakar

Assistant Professor
Madras Christian College
Chennai, Tamil Nadu

Ms. Saritha Rai

Economic Times
Bangalore, Karnataka

Dr. Raja Ramanna

Member of Parliament (Rajya Sabha)
Vice Chairman, Council of Management
National Institute of Advanced Studies
Indian Institute of Science Campus
Bangalore -560 012, Karnataka

Prof. S. Rajagopal

Homi Bhabha Visiting Professor
International & Strategic Studies Unit
National Institute of Advanced Studies
Indian Institute of Science Campus
Bangalore - 560 012, Karnataka

Ms. Sudha Ramchandran

Deccan Herald
Bangalore, Karnataka

Dr. K. Ramchand

Director
Centre for Air Borne Systems
Defence R & D Organisation
Belur, Yemalur Post
Bangalore - 560 038, Karnataka

Arvind Kumar

Ms. Anitha Ramanna

Centre for American Studies
School of International Studies
Jawahar Lal Nehru University
New Delhi - 110 067

Mr. Prasad P. Rane

Research Scholar
Dept. of Defence & Strategic Studies
University of Pune, Ganeshkhind
Pune - 411 107, Maharashtra

Dr. Uttam Sen

Formerly Editor, Deccan Herald
Bangalore, Karnataka

Mr. R. Sridhar

Madras Christian College
Chennai, Tamil Nadu

Prof. B.V. Sreekantan

Dr. S. Radhakrishnan Chair
Philosophy of Science Unit
National Institute of Advanced Studies
Indian Institute of Science Campus
Bangalore - 560 012, Karnataka

Prof. Prabhakar Vaidya

Mathematical Modelling Unit
National Institute of Advanced Studies
Indian Institute of Science Campus
Bangalore - 560 012, Karnataka

Dr. C. Vinodan

Dept. of Political Science
University of Kerala
Kariavattom P.O. - 695 581
Thiruvananthapuram, Kerala

Report on the Draft Indian Nuclear Doctrine

Dr. M.J. Vinod

Associate Professor
Department of Political Science
Bangalore University
Jnana bharathi, Bangalore - 560 056
Karnataka

Wg. Cdr S S Yegnaswami

Deputy Director (Programme Management)
Center for Airborne Systems
Defence R & D Organisation
Belur, Yemalur Post
Bangalore - 560 037, Karnataka

OBSERVER:

Dr. J.J. Salomon

Director Centre for Science & Technology
2, Rue Conte, 75141
Paris Cedex 03 France

Arvind Kumar is currently a Research Associate at the International & Strategic Studies Unit, National Institute of Advanced Studies. His research interests are in the field of defence, strategic, foreign policy issues and matters related to international security. His most recent publication is a chapter on "China and Export Controls" in an edited volume. He holds an M.Phil in international politics from Jawaharlal Nehru University, New Delhi.

Arvind Kumar

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