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The National Institute of Advanced Studies was conceived and started by the late Shri J. R. D. Tata. Shri Tata was desirous of starting an Institute which would not only conduct high quality research in interdisciplinary areas but also serve as a medium which would bring together administrators in government and private sector with members of the academic community. He believed that such an interaction could be of great help to executives in their decision making capabilities.

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Dr. M. S. Swaminathan is the Chairman of the Council of Management of Institute. Dr. Raja Ramanna was the Director since its inception till his retirement on July 31, 1997. Prof. R. Narasimha was the Director from 1997 to March 2004. Dr. K. Kasturirangan, (Member of Parliament, Rajya Sabha), Former Chairman, ISRO, is currently the Director of the Institute.

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Evolution of India's Nuclear Policies in the Context of Changing Security Perceptions

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Dr. Raja Ramanna Memorial Lecture

Shyam Saran

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Shyam Saran

Dr. K. Kasturirangan, Shrimati Ramanna, Dr. Sangeetha Menon, distinguished guests, ladies and gentlemen.

I wish to thank Dr. Kasturirangan and the National Institute of Advanced Studies, for giving me the honour and privilege of delivering the Second Annual Dr. Raja Ramanna Memorial Lecture. This lecture series is destined to become a major intellectual event in the national calendar, providing a welcome opportunity for creative interaction on some of the key challenges of our time. It is most appropriate that this lecture series honours the memory of one of India's great scientists and thinkers of our times, Dr. Raja Ramanna. He was not only a scientist,
but a musician and musicologist as well, playing the piano and authoring a well-known work on the Structure of Music in Raga and Western systems. Dr. Ramanna was one of the pioneers of India's nuclear programme since he joined TIFR in 1949 and later the Atomic Energy Programme in 1954. It was under his leadership that India demonstrated its capabilities with the PNE in Pokharan in 1974. He headed the Atomic Energy Commission as its Chairman in the critical years between 1983 to 1987. In 1988, following the completion of Dr. Ramanna's tenure as the Chairman of the Atomic Energy Commission, Mr. J.R.D. Tata invited him to be the founder Director of a new institute in Bangalore called the National Institute of Advanced Studies, and the prestige and respect this institute enjoys today owes much to his guiding hand in those early days. It is my honour to dedicate my lecture today on the Evolution of India's Nuclear Policies, to the memory of this great son of India.

I would like to begin by recalling that, in a sense, the birth of the atomic age more or less coincided with India's own emergence as an independent sovereign nation. Our emergence from the darkness of colonial rule made us, as a people, determined to maintain our independence and autonomy of thought and action. Our leaders instinctively sought to anchor our new-found freedom in a more equitable and democratic world order, where the strong would not be able to dominate the weak. The birth of the atomic age created the potential of immense destructive power, as demonstrated by the tragic atomic bombing of Hiroshima and Nagasaki. It also created the opportunity for using the power of the atom for transforming the economic prospects of countries who could harness its technology for peaceful purposes. The challenge for humanity was how to develop this new found overwhelming power for development and for the eradication of poverty, even while containing effectively, its potential for mass destruction.

It was no accident that India, with its Gandhian tradition of Ahimsa and its legacy of humanist values, found the very concept of a weapon of mass destruction, as abhorrent and its use as a crime against humanity. India came to the forefront, in the decade of the fifties and the sixties, as a passionate advocate of the cause of nuclear disarmament. In pursuit of the goal of the complete elimination of nuclear weapons, India also became a champion of interim measures such as a Comprehensive Test Ban, Nuclear Non-Proliferation and the concept of a Freeze on Fissile Material. However, it was always consistent in its insistence that these interim steps made sense only if they were linked to, and eventually led to eventual and universal nuclear disarmament.

At the same time, India saw the promise of nuclear energy as a major contributor to its aspirations for rapid
socio-economic development. The mastery of the complex technologies involved in the promotion of nuclear energy for peaceful purposes, was seen as an indispensable component of India’s emergence, once again, as a leader in science and technology. Pandit Nehru saw progress in science and technology as integral to India’s emergence as a modern nation. Therefore, while leading the global movement for nuclear disarmament, India became at the same time, one of the most enthusiastic advocates for international cooperation in the peaceful uses of nuclear energy for development.

However, even at this early stage, there was a clear recognition among India’s political leaders and its scientific community that India may need to reassess its security requirement if progress towards nuclear disarmament did not take place as expected. The desire to maintain India’s autonomy with respect to nuclear choice was present since the very commencement of our nuclear programme. The objective was to prevent external legal constraints from limiting our freedom of choice in this area i.e. we were not prepared to accept such legal obligations as might constrain our ability to develop nuclear weapons in the future, if changes in the security environment, in our considered judgment, necessitated this. Our preference was for a nuclear weapon free world, and this remains an article of faith for us. It is not only in terms of idealism or moral values that we take this position. It is also our considered and consistent judgment that a world free of nuclear weapons would enhance the security of our country, particularly given our large size, population and resources. In the Paper laid on the table of the Lok Sabha on 27th May 1998, after the series of nuclear tests, it is stated, and I quote:

“Development of nuclear technology transformed the nature of global security. Our leaders reasoned that nuclear weapons were not weapons of war, these were weapons of mass destruction. A nuclear weapon-free world could, therefore, enhance not only India’s security but also the security of all nations. This is the principal plank of our nuclear policy.”

In the absence of nuclear disarmament, the desire to maintain India’s strategic autonomy, implied the need to keep our nuclear choices intact. In the decade of the fifties and the sixties, India was prepared not to exercise its weapons option, as long as (i) it was able to continue to master the complex technologies of a full nuclear cycle and, therefore, build up its nuclear capabilities and (ii) its freedom to exercise its choice, at any time in the future, was not constrained. As long as there appeared to be a realistic prospect for nuclear disarmament, India was prepared, in the interim, to accept the temporary division
of the world into nuclear haves and have-nots. It is in this spirit that India welcomed the conclusion of the Partial Test Ban Treaty in 1963 and became one of its original signatories. It was also in the same spirit, that India became one of the original sponsors of the Nuclear-Non-Proliferation Treaty in 1965. The objective was to persuade nuclear weapon states to agree to renounce their nuclear weapon arsenals within a realistic time frame while non-nuclear weapon states would, in return, undertake not to develop such weapons themselves. There would be a certain balance of rights and obligations. However, the treaty that finally emerged in 1968 was, in our view, discriminatory precisely because the legal commitments on the part of the non-nuclear weapon states not to develop or acquire nuclear weapons were matched only by good faith declarations by the nuclear weapons states to pursue nuclear disarmament without specifying any time frame whatsoever. It was, therefore, clear to India that the global environment was changing in a manner and in a direction that would inevitably circumscribe its freedom of choice in the future. The experience of the NPT negotiations and the earlier nuclear weapon test carried out by China in 1963, led India to consider ways and means of ensuring its security, even if it was not yet ready to adopt an overt weapons option. This trend was reinforced by the reluctance of the established nuclear weapon powers to consider extending security guarantees to India in the event of the use or threat of use of nuclear weapons against India.

In 1974, India conducted a Peaceful Nuclear Explosion and demonstrated its determination “to safeguard its nuclear option”, as stated in the May 1998 Statement to the Lok Sabha. In conducting the PNE, India did not violate any international commitments it had undertaken, but it soon became the target of a number of highly restrictive technology denial regimes, led by the Western countries, whose objective was to retard, if not cripple, India’s acquisition of strategic capabilities, and to raise the economic costs of keeping the nuclear option open. Still it took India another decade to finally come to the conclusion that it needed to actively pursue a weapons option. In the Kargil Committee Report, it has been revealed for the first time that India’s nuclear programme became weapon-oriented at least since 1983. This date is of interest since it coincides with the assumption of Chairmanship of the Atomic Energy Commission by Dr. Ramanna in 1983.

What was the regional and global security environment in that period, which could explain the decision taken in 1983?

Firstly, as I said, the Pokharan-I test was followed by the establishment of highly restrictive technology denial regimes. Post-1974 all international cooperation with India in the nuclear field, as far as Western countries were concerned, came to a complete halt. Formal technology denial regimes were then set up, mainly targeting India,
and these evolved into the current Nuclear Suppliers' Group (NSG) and the Missile Technology Control Regime (MTCR).

Secondly, by the late seventies and the early eighties, it also became clear that Pakistan was engaged in an extensive but clandestine nuclear weapons programme. Due to the priority given by the U.S. and the West to the anti-Soviet proxy war in Afghanistan, Pakistan's illegal acquisition of technology and material for its weapons programme, was repeatedly ignored.

Thirdly, it also became apparent that not only was China improving its nuclear weapons capabilities, but there were credible reports of such capabilities being shared with Pakistan.

Against this background, it is not surprising that a decision was taken, as reported, in 1983, to pursue a weapons programme, though this was to remain discreet. Failure to do so may have resulted in India's permanent strategic inferiority, both within its own neighbourhood, as well as globally.

India, nevertheless, continued to espouse the cause of nuclear disarmament, even as it tried to expand its strategic options through a dedicated weapons programme. This was neither contradictory, nor hypocritical. It remained our view that India's security interests were best served by a world free of nuclear weapons and this perception became even more persuasive in the face of clandestine proliferation taking place in our own immediate neighbourhood.

Thus in 1988, Prime Minister Rajiv Gandhi presented to the United Nations, an extremely comprehensive and well-thought out Action Plan for Nuclear Disarmament. In a sense, this was a clear notice to the world that if the eventual elimination of nuclear weapons became an ideal impossible to achieve, India would have to reconsider its options. The underlying theme of the Action Plan was the same as it has always been for India, i.e. that it could not accept a permanent division of the world into nuclear haves and have-nots and with it, a permanent strategic inferiority for India. As people are well aware, the Action Plan evoked only a hostile response from nuclear weapon states, for whom the cause of nuclear disarmament was beginning to acquire the nature of a fantasy.

The next major development in the regional and global security environment came at the end of the decade of the eighties and the beginning of the decade of the nineties. The collapse of the Soviet Union, the end of Cold War and the emergence of U.S. pre-eminence dramatically altered the international landscape. In the nuclear field,
there were two major developments in the wake of this transformed international situation, which threatened to further limit India’s ability to keep open its nuclear option.  

First, after years of stalling any progress on a Comprehensive Test Ban Treaty (CTBT), the Western countries and Russia, decided to quickly conclude negotiations on an instrument that would essentially prevent any country, beyond the original five, from developing a credible and fully tested nuclear weapons arsenal. Nor was such a Comprehensive Test Ban linked in any meaningful manner to the eventual goal of nuclear disarmament.

Even while moves were being made on the CTBT front, at the NPT Review Conference in 1995, the commitments of non-nuclear weapon states not to develop or acquire nuclear weapons, were made permanent, with no prospect for nuclear disarmament by nuclear weapon states. Furthermore, acceptance of full-scope safeguards were made a universal condition for civil nuclear energy cooperation. It also became clear that the right to peaceful uses of nuclear energy enshrined in the NPT, could henceforth be circumscribed progressively through unilateral and additional conditionalities. India thus found itself in a tightening vise - its policy of restraint in not overtly exercising its weapons option, was not reaping any advantages for it. On the contrary, its option was becoming increasingly circumscribed and progressively more costly to maintain.

It is against this background that India decided, in 1996, not to sign the CTBT. As pointed out in the Lok Sabha Statement of May 1998:

“Our perception then was that subscribing to the CTBT would severely limit India’s nuclear potential at unacceptably low level. Our reservations deepened as the CTBT did not also carry forward the nuclear disarmament process.”

In fact, despite the end of the Cold War, and, therefore, the end of the rationale of deterrence, new doctrines came to justify the continued, even permanent possession of nuclear weapons. These included the possibility of “rogue” states clandestinely acquiring nuclear weapons, who may have to be deterred. There was also the possibility held out of non-state actors, like terrorist groups, acquiring such weapons and threatening their use.

India’s decision to exercise its nuclear weapons option overtly in May 1998 must be assessed against these post-Cold War developments. There was a sense that the window of choice was becoming narrower and narrower and would
close irrevocably if India did not assert its right to develop and maintain a strategic programme, and not merely demonstrate its capability to do so.

In exercising its option in May 1998, through a series of 5 nuclear tests, India declared itself a nuclear weapon state. Nevertheless, in doing so it was careful in conveying a policy of restraint and responsibility. Thus, it announced that it would only maintain a “minimum credible deterrent”, thus eschewing any plans for a massive nuclear weapons arsenal. It agreed unilaterally, to a voluntary moratorium on further nuclear testing, even though it still felt unable to adhere to the NPT. It reaffirmed its commitment to a Fissile Material Cut Off Treaty, but one which would be multilateral and effectively verifiable. While maintaining its reservations on the NPT, it has maintained its commitment to non-proliferation objectives, pointing to its impeccable record in preventing any diversion of its sensitive technologies to third countries. Above all, it has reiterated its continuing advocacy of global nuclear disarmament, pending which it is ready to join a multilateral convention against the use or threat of use of nuclear weapons, and has also announced a non-first use undertaking.

One could argue that India has, since the beginning of its nuclear programme, been content to develop its all-round capabilities in this field, using these capabilities themselves as a form of deterrence. It has been content to keep its nuclear option open, relying on ambiguity for deterrence, unless regional and global developments have undermined the efficacy of such deterrence, as has been described in this presentation. Ambiguity was no longer a credible policy instrument in view of the developments in the post-Cold War era.

While India has become a nuclear weapon state, it has yet to enunciate an official nuclear doctrine concerning the deployment and possible use of nuclear weapons in the manner that the 5 established nuclear weapon states have done. We have the doctrine of “minimum credible deterrence” but we have refrained from spelling out in any specific detail what constitutes such “minimum credible deterrence”. We have stated that this is a dynamic concept which could change in response to the changes in the regional and global security environment.

We have a Draft Report of the National Security Advisory Board on India’s Nuclear Doctrine of August 17, 1999, which contains recommendations by experts on issues such as the nature of nuclear forces, credibility and survivability, command and control, security and safety, research and development and finally disarmament and arms control. However, these recommendations have not
yet been accepted as part of India’s official nuclear doctrine, but nevertheless give us an idea of what such a doctrine may look like.

It is recommended in the Report that India’s nuclear doctrine should be based on the concept of “retaliation only”, and this would require survivability from any pre-emptive nuclear attack and the ability to inflict unacceptable damage in punitive retaliation. This would require a survivable arsenal that should incorporate a triad of forces, land-based, air-delivered and sea-based. It also calls for tight control and release authority at the highest political level, residency in the person of the Prime Minister. As in other nuclear weapon states, there will be effective command, control, communications, computing (C3C), information and intelligence (I2) systems which have to be set in place.

While the outlines of India’s nuclear doctrine are well-known, there has, so far, been no official articulation of the doctrine, nor any information on whether the various recommendations of the NSAB have, in fact, been implemented. In a sense, a policy of ambiguity concerning India’s nuclear weapons arsenal, has been adopted at a time when the country is still engaged in developing what one expert calls a “force in being”. What is important to understand, however, is that India has a credible strategic programme, it has capability to develop this programme further in response to regional and global security developments, but continues to be willing to pursue any meaningful measures towards nuclear disarmament, in a manner that it comprehensive and non-discriminatory.

In 1998, when India announced its arrival as a declared nuclear weapon state, it confronted, expectedly, a very adverse reaction from the 5 nuclear weapon states as well as a majority of the parties to the NPT. The G-8 Statement of May 15, 1998 and the Security Council Resolution 1174 of June 6, 1998 both unequivocally condemned India’s action, imposed a series of trade and technology sanctions and called upon India to roll-back and eliminate its nuclear weapons arsenal. The challenge for Indian diplomacy since May 1998 has been to preserve the integrity of its strategic programme, even while seeking international acknowledgement of its nuclear weapons status and the dismantling of the onerous technology denial regimes that the country has had to live with, and which have had adverse consequences for our economic development plans.

Looking back on the past 9 years since May 1998, one may justifiably claim that India has been largely successful in overcoming this diplomatic challenge. The process of gaining acceptance of our nuclear weapons status and in bringing about a change in technology denial
regimes, began with the Jaswant Singh – Strobe Talbot talks which stretched over the period June 1998-January 2000 and the agreement over the Next Steps in Strategic Partnership, which were announced during Prime Minister Vajpayee’s visit to Washington in 2003. The focus on the U.S. was logical, given its leadership of the Western world, its status as the chief source of high technology and its dominance of international institutions, including groups like the NSG and the MTCR. The Jaswant Singh – Strobe Talbot talks marked the re-engagement of the two sides and a serious effort on the part of the United States to adjust to the emergence of India as a declared nuclear weapon state, even while preserving the integrity of the international non-proliferation regime, based on the NPT. These talks did not lead to any agreements between the two sides, but were useful in enabling the two sides to test the parameters within which they could re-engage and even consider some forms of cooperation in the nuclear and space-related fields.

The Next Steps in Strategic Partnership or NSSP, marked an important step forward in the relations between the two countries. The NSSP envisaged cooperation between the two countries in the nuclear field in limited areas such as transmission of power from nuclear power plants, safety and security of nuclear facilities and the transfer of some categories of dual use technologies. NSSP also envisaged some limited cooperation in the space field, including the possibility of an agreement on commercial space launches. Finally, there was a readiness on the part of the U.S. to brief India on its ongoing Ballistic Missile Defence (BMD) programme, in which India had shown an interest, with the possibility of possible acquisition of such a system at some future date.

The NSSP process required certain specific actions on the part of India in order to enable the U.S. to relax its control over transfer of sensitive and dual use technologies to India.

For example, India agreed to harmonise its own export control lists with those of the NSG and the MTCR, despite being outside these regimes. It also agreed that, in response to the UNSC resolution 1540, India would be ready to adopt comprehensive legislation to prevent the diversion of sensitive WMD-related technologies to third countries or to non-state actors.

If the NSSP represented a half-way house in India’s return to the international mainstream, the Indo-U.S. Joint Statement of July 18, 2005 marked the eventual political legitimisation of India’s strategic programme and a significant prelude to the dismantling of 3-decades old technology-denial regimes that targeted India relentlessly.
The Joint Statement recognized India “as a state with advance nuclear technology such as the United States” and acknowledged that India should have the same benefits and advantages that are enjoyed by such states, while reciprocally undertaking the same responsibilities and commitments as such states. In doing so, India was not required, in any way, to accept any limitations on its strategic programme, nor sign up to any commitments beyond those it had already and voluntary given, such as a moratorium on nuclear testing and its willingness to engage in negotiations at the Conference on Disarmament in Geneva, on a multilateral FMCT. The Joint Statement opened the doors for the resumption of civil nuclear energy cooperation between India and the U.S. and eventually between India and other members of the Nuclear Suppliers’ Group. In return for such cooperation, India agreed that it would provide two sets of assurances to its partners, assurances that it considered legitimate. One, that nothing received under such cooperation would be diverted to third countries and two, nothing received under such cooperation would be diverted to benefit India’s strategic programme.

The first assurance would be buttressed by India’s WMD legislation, the harmonization of its export control lists with the guidelines of the NSG and MTCR and with the acceptance of an Indian-specific safeguards regime under the IAEA-India-specific because India could not accept full-scope safeguards like a non-nuclear weapon state, but neither would it qualify as a nuclear weapon state, acknowledged under the NPT.

The second assurance posed a difficult challenge since India did not have a dedicated and separate nuclear weapons programme separated from its civilian energy programme. The strategic programme grew out of, and remains embedded in the overall nuclear establishment. This is the reason why a phased Separation Plan was worked out, with civilian facilities declared at the discretion of India, which could then be available for international cooperation under IAEA safeguards. Those not included in the civilian category would, by definition, fall under the strategic category. The Separation Plan, which was announced in March 2006, would be implemented in stages upto 2014.

The July 18 Joint Statement and the March Separation Plan, envisaged an interlinked process with different components, leading upto the complete integration of India into the international mainstream including the opening up of nuclear commerce with international partners, the resumption of transfer of dual use technologies and the acknowledgement of India as a partner in global non-proliferation efforts rather than a target. The first and necessary component of this interlinked process was the adjustment of U.S. laws so as
to permit the U.S. administration to engage in civilian nuclear energy cooperation with India, despite India having a declared strategic programme. This has been achieved, despite many ups and downs, through the passage of the Hyde Act in December 2006. The next steps in the process are

i) the negotiation and conclusion of a “123 agreement” between the U.S. and the India on civil nuclear energy cooperation;

ii) the adjustment of NSG guidelines permitting its members to engage in similar cooperation with India, despite India not having full-scope safeguards on all its nuclear facilities; and

iii) the conclusion of an India-specific safeguards agreement between India and IAEA.

Once these steps are completed, India’s integration into the international nuclear and technology mainstream would be complete. The significance of this development for India’s economic prospects should not be underestimated. As the world moves towards a more technology-driver and knowledge-driven pattern of economic growth, India stands to greatly benefit from the dismantling of decades-old technology denial regimes. Its energy security would be greatly enhanced if the prospects of large-scale cooperation in nuclear energy also open up. The process of globalisation of the Indian economy would be further accelerated, bringing greater benefits to our people. And all this is being achieved without any compromise of our strategic programme.

I wish to conclude by saying that although we have achieved a great deal in taking this initiative forward, there are still difficult challenges which lie ahead. It is important that we make a sober assessment of our interests and not end up missing out on opportunities that are within our grasp at the moment, but may fade away if and when the international landscape undergoes another transformation. The world has acknowledged the reality of India’s nuclear weapon status and is ready to engage with India as an equal partner. This is a tribute to the achievements, under very difficult odds, of eminent scientists and visionaries like Homi Bhabha, Dr. Raja Ramanna and Dr. Vikram Sarabhai among others. They ensured that India retained its strategic option and its autonomy of decision-making, even when the international environment had turned hostile. The world has, in a sense, acknowledged that its efforts to put India into a “technological corral” have not succeeded. Today India has something to contribute to the world, it has something to bring to the table. The welcome India has received in the prestigious ITER project is testimony to that. Let us now embark on the global stage, therefore, with a sense of confidence and optimism. That’s the best tribute we can pay to the memory of Dr. Ramanna.
Sri Shyam Saran was born on 4th September 1946. He belongs to the 1970 batch of the Indian Foreign Service. From 1971 to 1974, he served in Commission of India, Hong Kong as Third Secretary. Thereafter, he was posted to Embassy of India, Beijing, from 1974 to 1977, where he served as Second Secretary and later as First Secretary. Mr. Saran served at the Headquarters of the Ministry of External Affairs, New Delhi, as Under Secretary and Deputy Secretary from 1977 to 1979. During July-November 1979, Mr. Saran participated as Fellow, United Nations’ Disarmament Programme in Geneva, Vienna and New York, and thereafter, till June 1983, he served as First Secretary in the Permanent Mission of India, Geneva, as Alternate Representative to the Conference on Disarmament. Subsequently, till September 1986, he was Counsellor and later Charge d’ Affaires of the Embassy of India, Beijing. Thereafter, he served as Deputy Chief of Mission in the Embassy of India, Tokyo, till August 1989. Mr. Saran served again at Headquarters, New Delhi, as Joint Secretary heading the Economic Division, the Multi-Economic Relations Division, and the East Asia Division of the Ministry of External Affairs. Thereafter, he served as Joint Secretary in the Prime Minister’s Office, New Delhi, till December 1992, looking after External Affairs, Defence and Atomic Energy. In 1992, Mr. Saran was appointed as High Commissioner of India to Mauritius where he worked till April 1997. After Mauritius, he served as Ambassador of India to Myanmar from April 1997 to July 2001. He has served as Ambassador of India to Indonesia from August 2001 to October 2002 and Nepal from November 2002 to July 2004. Mr. Saran served as Foreign Secretary from August 2004 to September 2006. Since October 2006, Mr. Saran has been appointed as Special Envoy of Prime Minister on Indo-US Nuclear Deal. Mr. Saran holds a Post Graduate degree in Economics. His mother tongue is Hindi and apart from English, he knows Chinese and French. He is married and has one son and a daughter.