India & the International Nonproliferation System

A Report by the South Asia Program

Center for Strategic and International Studies (CSIS)

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Executive Summary

The South Asia Program at the Center for Strategic and International Studies (CSIS) hosted a conference on June 23, 2006, titled *"India and the International Nonproliferation System"*. The main purpose of the conference was to reflect on an important gap in the debate over the U.S. – India nuclear agreement. The debate in the United States has centered around two issues: the nuclear agreement's potential effect on the Non-Proliferation Treaty (NPT) and India's fissile material production. There has been little discussion of India's potential participation in the nonproliferation system, if the agreement is implemented, and its effect on the institutions and mechanisms that try to prevent the onward spread of nuclear weapons.

The key findings of participants in the conference included the following:

Historical background:

- After India's nuclear tests, Indian nonproliferation policy was no longer driven by the need to preserve India's nuclear option, and India moved closer to the international nonproliferation mainstream.
- In particular, India became more supportive of arms control and adopted international standards on export control.

Indian policies on sensitive technology:

- Besides having a strong record of not exporting sensitive technologies, India already has significant technical cooperation with the International Atomic Energy Agency (IAEA), including training scientists and border management staff from other countries and helping to track down radiological devices.
- There is some built-in tension between the stronger export controls India has instituted and India's drive to develop a knowledge-intensive economy.
    - The government is strongly committed to preventing diversion of sensitive technology; it has a big training job to do in this area.
    - The private sector is involved in some sensitive production areas, and India will need new mechanisms for private-government cooperation.

- On the nuclear side, physical security is a strength; the personnel aspects of nuclear security need to be strengthened, and bureaucratic turf issues addressed.
- The issue of the plutonium fuel cycle raises questions that India itself has not addressed yet.

Adapting the nonproliferation system for future needs:

- All the speakers agreed that the international nonproliferation system needs to be revamped to focus better on today's most pressing needs. They also agreed that India needs to be part of this process.
- It is important to keep NPT in place and to retain its basic norms, while focusing more intently on preventing the emergence of new and dangerous nuclear weapons states.
- The future of international counter-proliferation will need to rely not just on the IAEA's technical audit system but on cooperative mechanisms that use countries' national capabilities. These include the Nuclear Suppliers Group (NSG) and the Proliferation Security Intiative (PSI).
- Both Indian speakers argued that India should join PSI and work with NSG, and that the implementation of the U.S. – India agreement would create the ideal conditions for India to do this. They felt India was likely to become a more active participant in international nonproliferation efforts.
- If the agreement is implemented, U.S. – India policy convergence is likely to extend to important areas of nonproliferation, although one should not expect 100 percent congruence in the strategic views of the two countries.
- One speaker urged that India consider making a commercial decision to lease nuclear fuel rather than buying it. He argued that such an arrangement could be commercially attractive and at the same time help reduce the expansion in world stocks of fissile material.

Introduction

On July 18th, 2005 President Bush and Prime Minister Manmohan Singh announced the framework for an agreement to make possible civilian nuclear cooperation between the United States and India. The agreement, together with a subsequent understanding announced in March 2006, requires that India separate its civilian and military nuclear facilities, placing 14 designated civilian facilities under IAEA safeguards. In return, the Bush administration agreed to seek changes in U.S. law and multilateral commitments to permit exports of nuclear equipment and technology to India. In the announcement of the agreement, India stated that it was making a unilateral commitment not to conduct further nuclear tests. In return, the United States pledged to make changes in policy and to seek the necessary changes in its own laws and in the international nuclear export arrangements in which it participates, to make possible the supply of nuclear fuel and equipment for civilian use, as well as U.S. technical expertise. At this writing, implementing legislation is awaiting final action in the U.S. Congress.

The proposed nuclear deal signed on July 18th, 2005 has been widely described as the most significant breakthrough in U.S. – India foreign relations. The intention of both governments was to cement an emerging strategic relationship between the United States and India, and to secure Indian participation in international export control efforts by removing the stigma of India as a "nuclear pariah." The deal has also been highly controversial. Critics in the U.S. and on the international nuclear scene argue that it weakens the Non-Proliferation Treaty (NPT) and sends the wrong message to rogue states like Iran and North Korea. Some argue that it will make it easier for India to expand its nuclear arsenal. Critics in India assert that it will limit India's flexibility in managing its strategic nuclear assets and in its foreign policy.

CSIS hosted a conference on June 23, 2006, titled *"India and the International Nonproliferation System"*. Speakers at the conference covered a broad spectrum of topics, including India's potential role in preventing the spread of nuclear weapons, India's foreign policy with regard to nonproliferation, and India's ability to meet international standards for export controls and

technology safeguards. Participants and speakers alike agreed that India can play a vital role, as both a technology contributor and fuel importer, if it is brought into the international nonproliferation system.

India and the International Nonproliferation System

Ambassador Teresita C .Schaffer and Vibhuti Haté

The Conference: Opening Remarks

Dr. John Hamre, President and CEO of the Center for Strategic and International Studies (CSIS), and Teresita Schaffer, Director of the South Asia Program at the CSIS, set the stage by discussing the tremendous change in U.S.-India relations over the past decade.

Dr. Hamre stressed the importance of viewing this dynamic relationship as a global stakeholder partnership rather than merely in bilateral terms. The potential impact of this relationship on global affairs is precisely why the question of nonproliferation is so important. For nearly 40

years, nonproliferation has been dominated by the NPT, but the effectiveness of the treaty is now in serious doubt. It is important to recognize that although India chooses not to sign the NPT, it is arguably one of the most responsible nuclear powers of the last 30 years. India clearly sees itself as a responsible global citizen and has demonstrated a willingness to be a major player in the establishment of a better international order.

Dr. Hamre concluded by stating that this conference provides a vital forum for the development of a truly global perspective on the future of nonproliferation and the role of India as a global partner in the international nonproliferation effort. Ambassador Schaffer urged participants to think about practical ways in which India's participation could strengthen international nonproliferation.

Dr. C. Raja Mohan, Strategic Affairs Editor, Indian Express, focused on India's foreign policy and the evolution of current political positions in India. He began by discussing the controversy surrounding the July 18th nuclear agreement. The primary justification given by the Bush administration in support of the deal is that an exception has to be made in order to effectively deal with India's "nuclear exceptionalism." Dr. Mohan went on to state that in order to fully understand this issue, one must examine two aspects of India's nuclear history: first, India's own attitude towards nuclear weapons and how nuclear weapons and nonproliferation have traditionally played out in India's foreign policy; and second, the efforts of both the Bush and Clinton administrations to come to terms with the fact that the world's largest democracy was outside the international nonproliferation system.

Traditionally, he argued, the left-wing parties of India held that India should work for universal disarmament and should have nothing to do with nuclear weapons. On the other hand, the conservative right-wing parties supported the acquisition of nuclear weapons by any means necessary, in order for India to protect itself against hostile neighbors. India established its first atomic energy program, the Tata Institute of Fundamental Research (TIFR) in 1944. TIFR was a private sector initiative that funded foreign scientists and enabled them to come to India. From 1944 to 1964, India emphasized international cooperation, promoting peace and disarmament, and creating capabilities for the production of nuclear energy.

In 1964, this focus on nuclear energy was dramatically altered as a result of the Chinese nuclear tests. The consensus that arose was that India should reach out to major powers, such as the United States, the United Kingdom and Russia, and ask them for help in addressing the security threat of a nuclear China, while keeping the option of developing nuclear weapons open. In 1964, India also proposed an initiative at the United Nations to prevent the proliferation of nuclear weapons. This measure eventually evolved into the NPT.

As things turned out, the NPT evolved into a measure that was contradictory to India's own policy regarding nuclear weapons. One of the essential requirements of the NPT was that non-nuclear weapons states must agree to not acquire or produce nuclear weapons or nuclear explosive devices. In return, states with nuclear weapons would extend a guarantee to defend non-nuclear weapons states and would provide them with nuclear technology for civilian purposes. Since India had been unable to secure such a guarantee from the major powers and now had a nuclear neighbor in China, it felt that the option to develop a nuclear bomb had to be left open-ended in order to protect its own strategic interests.

India, therefore, refused to sign the NPT and in time decided to pursue a nuclear power program. In 1974, India conducted its first nuclear explosive test, calling it a peaceful nuclear explosion. As a result, India's nuclear program came under tremendous international pressure. India continued to make international appeals for nuclear disarmament during this period.

In the 1990s, government scientists began to argue that since India was being targeted with economic sanctions regardless of whether it tested additional nuclear weapons, it should overtly test nuclear weapons and deal with the aftermath of international repercussions afterwards. The argument that the opportunity costs of not testing nuclear weapons had increased in the preceding decade thus led to a historic leap in India's nuclear policy. In May 1998, India carried out five underground nuclear detonations. India had now abandoned its earlier cherished assumptions about the nature of the international nonproliferation system, the role of power in the world, and the role of nuclear weapons.

After 1998, there were significant shifts in Indian nuclear policy, particularly with respect to Pakistan. The 1998 tests were followed by a fundamental change in India's approach to arms control and disarmament. India was forced to deal with the reality that India's traditional position on arms control was no longer sustainable now that it had acquired nuclear weapons. Prior to the 1998 tests, the fundamental diplomatic objective had been to defend India's right to test nuclear weapons. After the tests, the challenge became to reduce the costs of the nuclear tests and to find a way to accommodate the international nonproliferation system. Paradoxically, India would never have supported arms control if it had not carried out the 1998 nuclear tests. India could criticize international arms control measures by claiming that it was defending its own nuclear program as long as it did not test nuclear weapons itself. However, this position was no longer defensible once India carried out its nuclear tests.

This fundamental shift in foreign policy led to India's endorsement of many of the objectives of the NPT. India also began to publicly support nuclear free zones. In the past, India had viewed nuclear free zones as an international attempt to cap its own nuclear options in South Asia. However, this was no longer necessary now that India was a nuclear state. In another major change, India aligned itself with the international community on export controls. India had always claimed that it had a responsible export policy on nuclear technology, but before 1998 it never agreed to an international system of export controls. After 1998, India not only began to support export controls, it also upgraded its own export control system.

India also decided to pursue nuclear confidence building measures (CBMs) with Pakistan, which had conducted five nuclear tests a few weeks after India's tests. In earlier years, India had consistently refused to have a dialogue with Pakistan on nuclear CBMs, arguing that disarmament was the only solution. After the nuclear tests of 1998, India concluded that in order to have stability in the region, it was in India's strategic interest to engage Pakistan. More fundamentally, it came to terms with the fact that in order to be part of the international nonproliferation system, it would have to accept some restraints on its own nuclear ambitions.

Dr. Mohan then went on to discuss efforts of the former Clinton administration and the current Bush administration to bring India into the international system. Contrary to India's hopes, the Clinton administration made no significant changes to US policy on nuclear energy cooperation with India. India had hoped that adopting export controls and pursuing nuclear CBMs with Pakistan would be proof of India's commitment to nonproliferation efforts. However, Dr. Mohan emphasized that the Bush administration's success would not have been possible without negotiations that took place during the Clinton years. These negotiations not only provided both countries with a basis to understand each other better, they also laid the foundation for the success of the July 18th agreement.

Dr. Mohan continued by stating that once the nuclear agreement is ratified by the U.S. Congress, India will probably play an active role in conjunction with the U.S. to build a more vigorous nonproliferation regime. Also, positive progress in the United States with respect to the nuclear deal with India will make India favorable towards other nonproliferation measures, such as the PSI and interdiction regimes. Dr. Mohan concluded by stating that given the current security threats countries have to face, it is not enough to merely defend the NPT as an international treaty. It is also essential to construct a new nonproliferation order. India has an impeccable nonproliferation history. It also has substantial experience assisting the IAEA and values nonproliferation as a core strategic goal. Thus, India is poised to become an invaluable global partner for the United States in establishing a more effective international nonproliferation agenda.

Rear Admiral (Ret.) Raja Menon, Indian Navy, focused on three main criticisms of the nuclear deal from within the United States: first, that the nuclear deal undermines the effectiveness of the NPT; second, that it weakens the legal standing of the NPT; and third, that it undermines other U.S. interests, particularly with respect to China, while leaving India free to conduct an independent foreign policy that could pose problems for the U.S.

Adm. Menon began by stating that deterrence theory was discarded in the aftermath of the Cold War, leaving three new key questions for strategists: a) could terrorists have the motivation,

capability and resources to make or gain access to a nuclear device?, b) if not, could the gap be filled in by rogue states? In other words, could rogue states be reliably decoupled from non-state actors?, and c) could non-state actors get access to radiological devices?

Adm. Menon went on to discuss India's considerable involvement in nonproliferation activities related to the containment of radiological devices in conjunction with the IAEA. India has been in the forefront in locating, accounting for, and restoring lost radiological devices. India is already a regional center in helping the IAEA train both scientists and border management staff from other countries. India has also cooperated with the United States' Nuclear Regulatory Commission (NRC) and was one of the lead countries in tracking down radiological devices in Georgia after the Soviet Union withdrew its troops.

Adm. Menon went to argue that it is highly unlikely that terrorist organizations in South and Central Asia have the motivation, capability or resources to gain access to radiological devices. On the other hand, the acquisition of nuclear weapons by rogue states is a serious concern in the region. Adm. Menon discussed in detail the case of Libya, which he described as a classic case of a country that had acceded to the NPT and still clandestinely acquired nuclear weapons. Libya's proliferation activities from 1970-2003 can be roughly divided into two periods: before and after Libya started dealing with Pakistan. In the first phase, Libya acquired its first reactor from the Soviet Union in 1969 and was successful in separating plutonium from spent fuel. Libya then made six failed attempts to acquire uranium hexafluoride from European sources.

Eventually, Libya was able to acquire uranium hexafluoride from North Korea via Pakistan. This marks the beginning of the second phase in Libya's proliferation attempts. During this phase, the proliferation activities were managed almost entirely by intelligence agencies in Libya and Pakistan via a complex network of nuclear commerce. The A. Q. Khan network established a factory in Malaysia to manufacture P1 and P2 gas centrifuges that would produce enriched uranium. Since it was not obvious that the Malaysian factory was manufacturing centrifuges, they were able to import building equipment quite easily from European sources. The end product was sold to a company registered in Dubai by the A. Q. Khan network. The centrifuges

were then shipped from Malaysia to Dubai and diverted en-route to Libya. During this entire period, Libya was a signatory to the NPT. In fact, IAEA monitors were present in Libya.

Adm. Menon went on to state that it is critical to understand that the IAEA is simply a techno-audit system when operating in the field. Although the intrusive protocols strengthen this techno-audit system, the IAEA does not have a strong police force or a "fraud squad" on the ground in order to prevent proliferation. The new face of nonproliferation is undoubtedly national technical means and regimes like the NSG and the PSI.

The U.S. – India nuclear deal addresses the NSG regime. According to the nuclear deal, India must make its export legislation compliant with NSG protocols. This has already been done. Moreover, at least 38 of the 45 countries that are part of the NSG regime have a nuclear infrastructure that is less developed than India's. India has a fairly sophisticated nuclear program. Given that its nuclear export regime is NSG compliant, it does not make much sense to have an NSG regime with India outside the system. The US-India nuclear agreement makes it possible for India to be an integral part of this system. According to Adm. Menon, India will accede to the PSI in time as well. Adm. Menon highlighted the fact that when the NPT went into effect in 1970, the leadership in member countries was well aware that there were three countries outside the NPT: India, Pakistan and Israel. This was part of the policy landscape of the time.

Adm. Menon concluded his remarks by addressing the issue of India following an independent foreign policy and the argument that this is not in U.S. interests, particularly with regard to China. He stressed that India shares a long border with China, and New Delhi firmly believes that if India is ever targeted by a nuclear missile, the missile will most likely be a Pakistani missile of Chinese origin. Although China poses a serious security concern for India, China is slated to become one of India's foremost trading partners in the next half-century, given the economic trends of the past decade. India, therefore, must balance its security and economic interests vis-à-vis China, while maintaining positive relations with the United States. Given the geo-political realities that India must face in the South Asia region, it is unrealistic to expect India to place its own national interests secondary to those of any other nation.

Dr. Anupam Srivastava, Director of the Asia Program, Center for International Trade & Security, University of Georgia, began by stating that technology safeguards will play an essential role in convincing critics that India can be a responsible global partner in the international nonproliferation effort. He focused primarily on the levels of technology safeguards that are currently present in India both in terms of export controls and nuclear materials security.

In order to bolster economic growth, India's main goal in the last decade has been to emerge as a knowledge-intensive economy. The knowledge-intensive economy creates high-technology segments and increases advanced technological production capability. The Information Technology (IT) sector has already taken off, and the biotechnology and defense sectors are expanding.

A knowledge-intensive economy facilitates technology-embedded commerce with the rest of the world. The Government of India (GOI) has already established the required systems for Intangible Technology Transfers (ITT). However, ITT, by its very nature, creates detection and monitoring problems, namely, the problem of maintaining encryption and data privacy while reducing the risk of proliferation. In value-added businesses, companies need to be able to encrypt the information they transmit in order to protect their data from being stolen. Encryption for data privacy allows companies to build walls around their information transfers. These walls also make it possible for proliferation or national security relevant information to pass through without detection. The Indian government has to construct a better system of safeguards that permits a certain level of data privacy and at the same time prevents proliferation-related diversion from taking place.

Dr. Srivastava continued with a discussion on safeguards. Safeguards are intended to prevent the diversion of technologies within and outside India. These diversions could take place in the form of unauthorized re-exports or unauthorized transits and trans-shipments. The July 18th agreement is intended to permit India to use nuclear technology provided by the United States solely for civilian nuclear facilities. Therefore, India has to be able to provide a guarantee that the technology being provided to India will not be diverted for military purposes. Additionally, India

functions as the node for global commerce in the South and Southeast Asia region, so it has to be able to prevent unauthorized exports of nuclear technology.

Dr. Srivastava then went on to discuss India's shifting priorities for export controls. Until the 1980s all strategic technologies were directly controlled by the government. Now the chemical and biological industries have several private sector producers of dual-use items that are not supervised directly by the Indian government. This means that the government's licensing and enforcement officials have to work more closely with the private sector to ensure that security measures are being implemented.

In addition to the questions of safeguards and export controls, the Indian government will face several other challenges, particularly with regard to increasing the capacity and technical awareness of the staff that conducts licensing reviews of export controls. Customs officers have to be trained in a variety of areas, including being able to correctly identify and authenticate the integrity of the end user and the end use stated on the shipper's export declaration forms, and verify post shipment activities. They also need more training to identify nuclear and missile dual-use items in order to prevent unauthorized shipments and to better handle their commodity identification and product verification obligations. The Indian government has already started working on several initiatives in addition to working closely with the U.S. government to enhance the capacity of the customs and licensing staff and to provide them with real-time access to technical experts at the border. Dr. Srivastava reflected that given the technical sophistication of India's nuclear program in other areas, the Indian government should be able to meet these challenges successfully, but this would require additional resources and time.

Dr. Srivastava then focused on the Weapons of Mass Destruction (WMD) Act that was adopted in India in 2005. The WMD Act applies to export, transfer, re-transfer, transit and trans-shipment activities with regard to nuclear material, equipment and technology. The act also includes a comprehensive definition of technology, including ITT controls on Indian citizens abroad and on foreign nationals studying or working in India.

Indian export control lists have been harmonized with the control lists of the NSG and Missile Technology Control Regime (MTCR). This step was one of the Indian commitments in implementing the July 18th agreement. Dr. Srivastava also pointed out that efforts have already begun in India to harmonize its export control lists with those of the Wassenaar Arrangement (for exports of dual-use goods and technologies) and the Australia Group (to prevent the spread of chemical and biological weapons technology and material). The Indian dual-use consolidated list that covers nuclear, chemical, biological, missile and advanced convention weapons, officially known as the Special Chemicals, Organisms, Materials, Equipment and Technology (SCOMET) list, has been fairly similar to the dual-use lists of the United States and the European Union for several years. The WMD Act has also introduced the intent of the "catch-all" clause into the legislation. Penalties and liabilities for export control violations have accordingly been expanded and now apply to all individuals, including senior executives, involved in a particular business enterprise. Therefore, the WMD Act shifts the onus on industry to perform "due diligence" with respect to verifying end user antecedents. This will be a significant change in the way some India-based businesses operate. This also means that the Indian government has to ensure that it provides updated information and technical advice to industry with regard to suspect end users.

Dr. Srivastava continued with a brief discussion of nuclear security in India. According to him, nuclear complexes in India have good physical protection in the form of perimeter protection, electronic surveillance, human surveillance, and access control. Similarly, there are strict materials controls and accounting processes. Proportional access badges are handed out to staff, fissile material is weighed before & after experiments, regular internal audits are conducted about twice a year, and an annual audit is conducted by the Atomic Energy Regulatory Board (AERB). Additionally, the Controller and Accounting General (CAG) of India conducts periodic revenue and administrative audits.

Dr. Srivastava concluded with an assessment of India's strengths in nuclear materials security and management, the areas in which the nuclear program needs improvement and the enhancements that are expected from the nuclear deal. First, the strength of India's nuclear program – the fuel storage facilities, the physical security of the nuclear material and the nuclear

reactor design – all have high safety standards. The safety of the nuclear plant design was apparent during India's efficient clean up of the nuclear facility in Kalpakkam which was flooded after the tsunami. The clean up was so competent that Japan, which has one of the world's largest land-based nuclear power reactors program, expressed an interest in a bilateral dialogue with India in order to adopt similar nuclear reactor design safety protocols. And the IAEA is planning to conduct an exercise so that other countries can learn from this Indian experience.

Second, Dr. Srivastava argued that improvements were needed in some key systems. These include training on security procedures for non-technical staff, stronger background checks for non-critical personnel (especially in transportation), safety of nuclear material during transport, nuclear waste disposal, occasionally prickly relations with regulatory bodies like the AERB and the CAG, and improving the security of flight corridors and monitoring of air traffic over nuclear facilities.

Dr. Srivastava concluded by laying out the improvements that are expected to take place if the nuclear deal goes through. India will continue to harmonize its export control implementation with international best practices. India will also enhance the scrutiny of imported materials and technologies, and improve information sharing with the suppliers. These enhanced international-caliber procedures will apply to all entities in India's civil nuclear complex, including power plants, reactors, and fuel fabrication and mining facilities. Lastly, Dr. Srivastava talked about the "osmotic learning" that will take place in the military program. It is obvious that the Indian government will not permit any external participation in or monitoring of its military nuclear program, but the safety lessons that are learned in the civil facilities will be adopted in the strategic facilities.

Discussion

Daniel Poneman, **Principal, Scowcroft Group**, led the discussion of the three panelists' presentations. Mr. Poneman began asking how implementation of the July 18th

agreement would affect relations between the United States and India. Assuming that the nuclear deal is approved by Congress, the NSG acquiesces, IAEA safeguards are effectively implemented and there is an active build-out of nuclear energy in India, what is the future for the United States and India? Mr. Poneman reflected that the best-case scenario is that the United States and India both accept the same set of norms and exercise leadership towards a common purpose. A moderate alignment of strategic objectives could be achieved, and nuclear cooperation and economic interdependence would increase significantly. Conversely, the worst-case scenario would be that India continues to produce fissile material, refuses to sign on to PSI and follows a foreign policy that puts it at odds with the United States. These developments would strain relations between both nations. The discussion that followed focused on the following key questions:

Does the nuclear deal weaken the nonproliferation regime?

Critics of the nuclear deal argue that making an exception for India considerably weakens the global nonproliferation regime. Proponents of the agreement argue that the nuclear deal provides a new framework for a better nonproliferation regime by normalizing India's relationship with the regime. The nonproliferation regime has been considerably weakened in the past decade. Countries like Iran, Libya and North Korea have undermined the NPT by pursuing nuclear ambitions despite their treaty obligations to forswear nuclear weapons. Mr. Poneman and others felt that any effective international nonproliferation system has to include India, a strategically important country with significant technical capabilities. Some suggested that India also has tremendous resources in terms of intelligence gathering that can make a joint U.S. – India nonproliferation effort very effective. Others indicated that, with respect to export controls, the NSG will be considerably weakened in its effectiveness if India is not brought into the system. Mr. Poneman pointed out that there are various aspects of the nonproliferation regime that are outside the bounds of the NPT -- such as export controls, PSI, diplomacy, and various fuel cycle arrangements -- which could provide useful mechanisms to bring India into the nonproliferation regime without undermining the NPT.

Mr. Poneman warned that unless India is made part of the global nonproliferation solution, it will inevitably become part of the problem.

Mr. Poneman and several participants went on to state that although India has capacities that can strengthen the NPT, using exceptionalism as a justification for the nuclear deal is a dangerous precedent. It is impossible to sustain a rule-based system on exceptionalism.

What is the future of international nonproliferation system and the NPT?

Several participants agreed that the NPT establishes a norm in that it provides political and legal barriers to prevent the spread of nuclear weapons. Changes to the nonproliferation regime should not include amendments to the NPT, since any effort to amend the treaty would open a Pandora's Box of claims and counterclaims far more likely to weaken than strengthen nonproliferation efforts. They noted that although the nonproliferation regime needs to be restructured, the NPT is still the bedrock of the nonproliferation regime.

How do India's exceptionalism and independent foreign policy fit with U.S. strategic interests?

Adm. Menon, as well as other participants, addressed the criticism that India's independent foreign policy might nullify the benefits the U.S. might gain from the nuclear deal. The speakers stated that it is important to bear in mind the substantial long-term gains for the United States if relations with India continue to improve. Given the economic rise of China and the problems in the Middle East, the U.S. needs strong allies. At the same time, countries that are allies need not always agree with each other. India's foreign policy, like that of any other nation, will always primarily reflect its own strategic and economic interests. However, compromises will have to be made on both sides and the effective use of diplomacy will play an essential role. Speakers also pointed out that unless the United States adapts and relates nonproliferation objectives to other strategic concerns, the nonproliferation effort will go nowhere.

Mr. Poneman went on to state that the United States and India are both great nations with independent foreign policies, and while differences are inevitable, they need not be fatal to constructive bilateral relations in advancing mutual interests, Mr. Poneman stressed that the acid test of U.S. – India relations will be the issue of Iran. Irrespective of public rhetoric, it is critical

that behind closed doors the Indian administration acts clearly and unequivocally to oppose Iranian efforts to develop a nuclear weapons capability and to shield those efforts from the appropriate scrutiny of the IAEA. According to Mr. Poneman, India's vote alongside the United States at the IAEA Board resolution regarding Iran's nuclear policies was a step in the right direction, but that the road ahead will be difficult and require steadfast international cooperation if the international community hopes to succeed in containing Iranian nuclear ambitions.

A proposal: commercial fuel leasing

Mr. Poneman concluded with a proposal. India, he said, has an interest in finding opportunities to demonstrate leadership in achieving nonproliferation objectives. He then proposed that India take the initiative to supply its light water nuclear plants with leased uranium fuel that was enriched by existing suppliers. A lease agreement, under this proposal, would stipulate that during the leasing period India would not build additional enrichment or reprocessing facilities. There are good commercial reasons to favor such an arrangement, in that it would remove from India the burden of dealing with spent fuel: the lessor of the fuel would deal with that. Thus fuel leasing could provide a pragmatic, commercially based leasing mode to promote the nonproliferation objectives of President Bush's 2004 fuel cycle initiative. Mr. Poneman also pointed out that the fuel leasing proposal does not amend the July 18th agreement. One of the provisions of the nuclear agreement is that India will support international efforts to prevent the spread of enrichment and reprocessing technologies. Mr. Poneman concluded by stating that this would be an opportunity for India to show leadership not only in the nonproliferation effort but in trying to establish a strategic partnership with the United States.

India's fuel cycle

Adm. Menon addressed the criticism that the July 18th agreement allows India to substantially increase its nuclear arsenal. Critics claim that by providing India with fuel for its civilian reactors, the nuclear agreement frees up fuel for India's fast breeder reactors. The spent fuel from these fast breeder reactors could be reprocessed to create plutonium, which can then be used as nuclear fuel.

India has insisted on keeping its fast breeder reactors outside the safeguarded civilian nuclear sector. Additionally, the agreement does not cap India's production of weapons-grade fuel. So, according to critics, the agreement essentially provides India with an unlimited ability to create more warheads and build its nuclear stockpile.

Adm. Menon pointed out that if India concentrates on the plutonium heavy fuel cycle, it will still have to choose between producing fissile material and charging its fast breeder reactors. They cannot do both at the same time for technical reasons. This means that if the plutonium fuel cycle is continued, India's fissile material stock will grow very gradually.

It is also important to bear in mind that the technology to produce plutonium from weapons-grade uranium has not yet been fully developed. The question India needs to deal with is whether this highly unusual fuel cycle is worth pursuing? If India decides that the plutonium fuel cycle is not viable, India will have to switch the emphasis in its domestically built nuclear facilities to light water technology, which would make it easier to restrict fissile material production.

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June 23, 2006
10 A.M. – 12:30 P.M.
B1A Conference Center

10: 00 A.M. **Welcome and Introduction**
Ambassador Teresita C. Schaffer, Director South Asia Program, CSIS

10:10 A.M. **Nonproliferation and India's Foreign Policy**
Dr. C. Raja Mohan, Strategic Affairs Editor, Indian Express

10:30 A.M. **Expanded Nonproliferation and the Proliferation Security Initiative**
Rear Admiral (Ret.) Raja Menon, Indian Navy

10:50 A.M. **Technology Safeguards in India: Export Controls and Nuclear Materials Security**
Anupam Srivastava, Director, Asia Program, Center for International Trade & Security, University of Georgia

11:20 A.M. **Discussant**
Mr. Daniel Poneman, Principal, The Scowcroft Group

11:30 A.M. **Q&A Session**

12:30 PM **Adjournment and Refreshments**