# INDO-US NUCLEAR DEAL

# DR .LEENA MERLIN MG.UNIVERSITY

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ABSTRACT Indo-US nuclear relations of last six decades saw fundamental differences on nuclear issues. This conflicting situation jeopardized the bilateral relations for three decades. The Indian nuclear program was the result of the efforts made by H. I. Bhabha, a Cambridae-educated scientist, who was areatly inspired by Manhattan project of the US as a student and wanted to make India a nuclear power. Therefore, he established an institution known as 'Tata Institute of Fundamental Research' in India in 1944. After independence, Bhabha and other scientists persuaded Jawaharlal Nehru, first Indian prime minister, about fissile material as a potential source of energy. Nehru was also convinced that scientific community could speed up India's development by using atom for peaceful purposes enabling India to move from dung power to nuclear power In 1948, Indian Atomic energy Commission (AEC) was established and Bhabha was appointed its first chairman. India wanted self-reliance in nuclear energy but it was not possible without foreign assistance. So British-designed research reactor APSARA was constructed in September 1955 and another reactor known as CIRUS was obtained from Canada in 1956. During these years, the US actively supported India under the Eisenhower's policy 'atom for peace' and helped in constructing nuclear power reactors (Tarapur) for civil nuclear eneray and provided one ton of heavy water in 1956 for the CIRUS research reactor. During this period, nuclear scientists and researchers from India were also allowed to aet education at American institutions and nuclear laboratories.(Cohen:2001)

Keywords:

## **Nuclear Non-Proliferation Treaty and Nuclear Debate**

Indo-China border war of 1962 brought humiliating defeat for India, which reinforced strategic concerns and brought intensive debate over nuclear capacity. China exploded its first nuclear device in 1964 and became nuclear power, which was viewed by America as a threat and the latter intended to support India for nuclear capability. Being an idealist, Nehru refused to make India a nuclear power However, it was widely assumed that China had retained conventional lead over India and that was hard case for New Delhi. After Chinese explosion in 1964, multilateral negotiations on nuclear non-proliferation began in Geneva in a Conference on Disarmament (CD). Ultimately Nuclear Non-proliferation treaty (NPT) was finalized in 1968. India participated in negotiations but did not sign the treaty calling it discriminatory. (Talbott:2004) India hoped that the NPT would work for general disarmament. But Article 6 of the treaty contains a weak promise about those states, which possess nuclear weapons. According to NPT "to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a Treaty on general and complete disarmament under strict and effective international control". This article was never taken seriously by nuclear weapon states (NWSs) and it was only a sop to the non-nuclear states, "more likely to be honored in the breach" Under the NPT, nuclear power of five permanent members of the UN Security Council was legalized as they gained this capability before 1967 and it forbade all other countries from becoming nuclear weapons states (NWSs). Article 9 of the treaty provided the definition of NWS as one which had conducted nuclear tests and built nuclear weapons before 1 January 1967 and others were defined as nonnuclear weapon states as they did not detonate nuclear devices (Epstein: 1976). In principle, nuclear ability was not the matter of division but evidence of explosive ability was the reason to determine the nuclear status of a state. This so called division produced a system of "global nuclear apartheid" as Indian negotiator V.C. Trivedi called it and India remained an 'underdog' in nuclear order This discrimination was alarming for India, which was wrestling to keep its nuclear option open. George Perkovich, a nuclear analyst commented that "the final version of the NPT was unlikely to offer security guarantee to India especially against China." (Ibraham: 2007)

The NPT was enforced in 1970, while India, Pakistan, Israel and Cuba were no signatories. Contrary to the Partial and Comprehensive Test Ban Treaties (CTBT), which globally constrain legal mechanisms for slowing down and eventually halting the increase in nuclear weapons, the NPT was taken as a legal instrument for overcoming the inherent ambivalence in nuclear arena. It precluded the expansion of nuclear weapon technology beyond those states that had already achieved and tested nuclear capability. The NPT made no

efforts to discourage the states to get nuclear weapons as source of prestige or power but froze the nuclear status quo effectively.(Ibraham:2007)

#### India on the Road of Nuclearization

After the border war, anti-Chinese feelings were dominant among politicians and nuclear scientists in India. But the cost was the major issue for a poor country because of heavy estimates of the project. However, India received heavy military grants from the U S and the Soviet Union after Sino-India border war of 1962. But the Indo Pakistan war of 1965 reduced American interests and the US dropped the subcontinent from its agenda. India could not obtain security guarantee from the US or the Soviet Union against hostile nuclear China. In this scenario, India was not ready to undercut its nuclear program and was reluctant to join the NPT. India pleaded that technology involved in preparation of nuclear weapons and peaceful nuclear device was the same, and technology in itself was not an evil. It did not mean that the poor and developing nations should keep away from technology due to fear of its use for military purposes.(P.Limay:1993) In May 1974, India detonated its first plutonium device named Pokhran-I in Rajasthan desert and became the sixth nuclear power in the world. It was a weapon test but was portrayed as a "peaceful nuclear explosion" (PNE) due to Indian reservations during the NPT negotiations. The message sent to Indian Prime Minister Indira Gandhi by Indian scientists was that "the Buddha has smiled." After this explosion, Indira showed her interest in a global approach to nuclear disarmament and repeated its rejection of the NPT on the ground that it was discriminatory(Talbott:2004)

India achieved the position to build a missile capability and moved to the deployment of nuclear weapons, starting it with defensive capability declaring a 'no first use' policy . Indira was facing political crisis and nuclear explosion was aimed at securing her shaky political position of that time However, domestic political chaos remained, which led to the 1975-77 emergency and Morarji Desai, an idealist in approach rather than realist, became the prime minister of India. Desai was not interested in nuclearization but a few scientists remained busy in nuclear development. Most of the stringent instruments of the non-proliferation regime were enforced after nuclear test of 1974. After this test, President Carter made nuclear non-proliferation as the center piece of his foreign policy and singled out South Asia as an important target. By 1990, the US policy was mainly focused on proliferation. (Cohan:1998)

After several years of 1974 explosions, architects of the tests disclosed that these were nuclear weapons tests rather than "demonstration" of capability as Indira Gandhi commented. However, this statement exposed future designs of building nuclear weapons. Later, it came to know that it was not a political decision but to build nuclear weapons (Singh: 1985). Whatever were the reasons might be, its impacts on Indo-US relations were adverse and it took decades to recover. Canada was also victimized for providing CIRUS reactor to India and this reactor was utilized for production of plutonium that was used in explosive devices. The heavy water supplied by the US was used in these reactors. Condition of nuclear exports for nonnuclear- weapon states became problematic and Tarapur reactors were its victim, which were constructed by American firms for low-enriched uranium, following the nuclear cooperation treaty of 1963 (Chari:2009) Moreover, Congress passed the Nuclear Non-Proliferation Act of 1978 (NNPA, P.L. 95-242). This Act was enacted to determine American nuclear relations with world community in legal terms. It was also to end cooperation with those states that had violated nuclear cooperation treaties with the US along with those states that detonated nuclear explosives (Limay, 1993). It brought tough policy regarding the US nuclear exports to non-nuclear-weapon states. This legislation was a unilateral attempt to alter the conditions of existing bilateral cooperation under nuclear policy.

In spite of that, the Carter administration issued an executive order to export two more uranium shipments and spare parts for Tarapur reactor but the Nuclear Regulatory Commission (NRC) did not issue an export license under the nonproliferation legislation. Congress voted against the executive order of the President (Rubinoff: 1992). The supply of enriched uranium for Tarapur was suspended but Desai gave a personal promise to Carter that his government would not pursue nuclear weapons and avoid nuclear testing (Limay: 1993).

Reaction of the international community was severe to the nuclear test of 1974. The NNPA 1978 had imposed a unilateral set of norms on nuclear trade but it was insufficient. The US took initiative to the formation of London Supplier Group for controlling nuclear proliferation and implementation of nuclear export control laws. Later it was renamed as the Nuclear Suppliers Group (NSG) and published its guidelines in 1978. This act allowed transfer of nuclear energy for peaceful purposes but with restrictions to control its diversion in nuclear explosive activities or nuclear fuel cycle unguarded. (Sathasivam: 2005) US commitment to nonproliferation policies is linked with its national interests as past practice indicates. It has

mixed records on commercial and other strategic exports. It enacted legislation that restricted the export of nuclear-related material and technology to those countries that did not accept full scope safeguards under the authority of International Atomic Energy Authority (IAEA). India refused to sign the NPT as well as to submit itself to IAEA. India also refused to accept the full scope safeguards .This inconsistency was also showed in the case of Pakistan, when the US ignored nuclear program for the cause of Afghan War of 1980s. Pakistan was acquiring nuclear capability without testing or declaring to become a nuclear weapon state. India alleged in 1987 and again in 1990 that it was under the threat from Pakistan and sought Indian security community to response it with embarking upon a nuclear program. India called both China and Pakistan as greater threats to security (Saeed: 2004) Indo-US relations remained cool and India became target of the US nuclear sanctions, which gave a blow to its civilian nuclear program. India blamed the US for providing covert nuclear capability to Pakistan during the Afghan War, It also alleged Washington of adopting double standard towards horizontal proliferation and ignored nuclear program of Pakistan and Israel, while castigated India and Cuba (Ibraham: 2007). This slack of policy turned India to the Soviet Union and both of them signed a treaty of "peace and friendship" in 1971 for 20-years. Other events that took place in this decade further strengthened this relationship. By the end of the 1980s, the US cut all nuclear exports to India applying the terms of the NNPA. France continued supply to India until adoption of a full-scope safeguards requirements. However, Russia supplied fuel to India from 2001 to 2004 (Palit:2001)

The dissolution of the Soviet Union ended the Cold War that was followed by the first Gulf War of 1990. Changing global scenario brought positive shift in Indo-US relations. Indian Foreign Secretary J. N. Dixit wrote in his memoirs about his visit to Washington in March 1992 that Congress "concentrated entirely on issues of nonproliferation and Kashmir." Dixit had to face issue of non-proliferation during his meetings, which made him to reiterate that "India was absolutely firm about not signing the NPT" (Dixit: 1996). But this visit did not bring any positive development for Indian nuclear program. In 1993, transfer of cryogenic technology to India from Russia was prevented by the US as it was against the MTCR. It also directed India to stop missile program. In fact, Indian missile and nuclear program were not only jeopardizing the regional security but also threatening the US military installation in Diego Garcia. The outcome of this activity created tension in Indo-US relation during this period (Palit: 2001)

South Asian Bureau (renamed as Bureau for South and Central Asia) was created in 1992 when the State Department reorganized its regional distribution. An assistant secretary was appointed to run this bureau. This office collected information through satellite images in December 1995, which showed that India was in position to test the nuclear weapons. American diplomats warned India that "a test would backfire against India" (Talbott: 2004). Indian Prime Minister Narasimha Rao cancelled the tests on American reaction (Ibraham: 2007). President Clinton wanted to improve relations with India but "Indian refusal to join the NPT made it hard for the Clinton Administration to develop attraction with India". During the visit of Narasimha Rao to Washington, the US mounted pressure on India to join multi-party talks as well as to constrain its ballistic missile programs but India did not change its stance and negotiations failed. This era also witnessed visits of First Lady Hillary Clinton along with cabinet officials including the Secretaries of Commerce, Defense and Treasury to India but even then little progress was made on the proliferation issue (Ibraham: 2007)

In the post-Cold War era, a new mantra of global economy was dominating the world but non-nuclear states were assertive in their view that increasing aberration in international politics is due to nuclear weapons. International public opinion condemned France and China as they conducted 'a final round of nuclear tests' before signing the CTBT. A tussle between India and the US started when a review conference on the 25 years performance of the NPT was held in 1995. There was already a conflict over the CTBT in 1994 when the CTBT employed an unusual provision that all nuclear capable states should sign and ratify the treaty to come into force, which single out India and a few other states. The provision was outlined in Article 14 and was pushed by Britain, Russia and China that might want to weaken the treaty for strategic reasons India conducted its nuclear tests in May 1998 and Pakistan followed it. The situation in South Asia changed where two states declared them as nuclear weapons states. It was India which took the lead and came under international pressure. The situation became critical as Washington and non-proliferation community showed high mistrust. Other major powers also shared these concerns and supported the UN Security Council Resolution 1172. China remained silent in the beginning but later joined its voice with others at the disclosure of a letter from Vajpayee to Clinton, in which he alleged China as India's main threat, which led India to conduct nuclear test (Rizvi: 2001). Indian Defense minister George Fernandes declared China as number one threat to Indian security in a speech on 2 May 1998. These statements evoked a negative reaction from China Indian Foreign Minister Jaswant Singh tried to reduce tension created by nuclear test as he was staying in Washington. He pleaded Indian case and became a little successful. During this period, Clinton's visit to India inaugurated a new era in Indo-US relations. Jaswant Singh and Strobe Talbott conducted eight rounds of discussions in different countries with hope to generate possibilities of better relations between the two states. Though these negotiations did not yield any agreement yet bring symbolic terms for both sides. The talks provided a foundation for future interaction and helped in clarifying their differences and created goodwill. Strobe Talbott wrote all these details in his book, *Engaging India: Diplomacy, Democracy and the Bomb*.

The change in situation was further confirmed by Clinton's visit to India which was widely ascribed as a path opening the new avenues of cooperation. In the changing scenario, after becoming nuclear power, India distanced itself from liberal internationalism, considering ethical norms and morality as the weapons of the weak states. It indicates a desire to change the rule of global order suitable to its future plans. (Basu: 2007)

# 6.4 Development towards Strategic Partnership

Since 1990s, the US Defense Department was working with India for better and functional relations in areas other than the nuclear dimension. One reason of this development was India's growing economy and importance in the new century. Here the question arises whether the improvement of bilateral relations was due to nuclear issue. Rejecting this viewpoint, New Delhi alleged that restricted access to dual-use high technologies was hurdle in its nuclear development due to certain historical and political reasons, which were cornerstone to this issue with the US. Keeping it in view, India assumed that there were no clear American statements or approach to legitimate Indian nuclear program outside the non-proliferation framework. To change the situation and overcome the Indian mistrust regarding American intentions, key players of both countries made efforts to improve the situation addressing the nuclear issue directly. Improvement in bilateral relations was possible by accepting the Indian nuclear program with Indian strategic importance and identification with international status. The US discarded its prudent and put aside nuclear concerns and nonproliferation consideration for the sake of a new strategic alignment.

# Factors: Seeking a Strategic Partnership between the US and India

Inauguration of the "new world order" and emerging as the sole superpower were perceived an American victory but this brought strategic uncertainties due to shattering of bipolarity. It also enhanced the intrusive presence of China and the US in the South Asian region and both of them attempted to maintain strategic balance. This scenario brought close ties between India and the US. Both countries explored certain areas of convergence of interests at political and strategic levels that supported in building a strategic partnership for gaining certain goals: These are:

The United States has vital strategic interests in the world's largest reserves of energy lying in the Middle East, Gulf region and South Asia. India occupies the strategic location linking the Indian and Pacific Oceans. Other common value is "the freedom of the high seas" and more specifically the sea-lanes emanating from the Hormuz Straits and branch out in the West and East. The US military presence in this area has been

strengthened by occupying the base facilities, particularly in South Asia.

Chinese military power in the Asia Pacific is a challenge to the US dominance. This region has the largest reserves of energy in the world. India also perceives China as a security threat to its vital interests because it is becoming a more powerful by the passage of time with its preponderance of nuclear weapons and military might. Chinese assistance in missile development has strengthened Pakistan in South Asia.

In international relations, geo-economics and geo-strategic considerations are very crucial and partnerships in enhance the strength of the nations. The US and Indian strategic partnership is inevitable as it is increasing relations and economic interests. For India, the US provides important, dynamic and strategically rich options to counter the emerging threats in the region (Kapilia: 2006).

All above-mentioned factors led both countries to seek a strategic partnerships as a ladder to access the wider field of cooperation as compared to erstwhile allies of the Cold War relationships. Authoritarian regimes and dictatorships are not in the position to provide the US with the sinews to counter new global challenges. The US chose India to face these challenges as both are democracies, where change of government is peaceful and economic growth is assured.

#### **Next Steps in Strategic Partnership (NSSP)**

India has been seeking foreign aid to develop nuclear infrastructure for energy requirements since late fifties. Its pioneer founder of nuclear program, Homi Bhabha predicted that "by 1987 nuclear energy would constitute 20,000-25,000 megawatts of installed electricity-generation capacity." His successor Vikram Sarabhai claimed that by 2000 India would be able to generate 43,500 megawatts of nuclear power but estimation of both scientists was not accurate. The cold hard facts remained and 3,300 megawatts nuclear

power was generated, which was 3% percent of installed electricity capacity. In India, 4% electricity is generated by wind energy. The government has planned to produce 10,000 megawatts by 2010, 20,000 megawatts by 2020 and 150,000 megawatts by 2050 (Moammad: 2006).. These claims appeared surreal showing India's past record of energy production and existing infrastructure. To achieve this target, India required nuclear expertise, cheap materials to produce clean energy, advance technology and improvement in Indo-US relations to fulfill this dream.

Under the new relationship of 'natural allies,' a term used by Vaipayee in 2001, India strengthened its case for gaining cooperation in all types of energy needs, particularly nuclear energy. To materialize this cooperation, negotiations were long but hopeful and ultimately an agreement was signed in January 2004 known as the "Next Steps in the Strategic Partnership" (NSSP). President Bush announced it and Vajpayee endorsed it. It included "expanded cooperation in three areas: civilian nuclear activities, civilian space programs, and high-technology trade. In addition, it was suggested to expand dialogue on missile defense" (Fact Sheet: 2004). First phase of this agreement was completed in September 2004 assuring compliance with American export controls and addressing proliferation concerns. The Bush administration removed bulk of technology sanctions from India after concluding the NSSP. This agreement was one of a few foreign policy successes of the Bush administration. Indian lobbyists and pressure groups also played role. For both countries, military and economic interests were important but former were driven by executive orders while the latter were mostly lying outside the governments' access and would not be much beneficiary. India became a strategic partner and it was beginning of new era. The US National Security Strategy 2002 defined the contours of this partnership and stated that "the United States had undertaken a transformation of its bilateral relationship with India based on a conviction that US interests require a strong relationship with India" (Bush: 2002).

## The Strategic Dialogue between Bush and Manmohan Singh

George W. Bush won the second term of presidential elections in 2004 and continued consistency in his foreign policy. Strategic dialogue with India touched the next level. To accomplish this task, three high bilateral visits were made. Condoleeza Rice arrived in New Delhi in March 2005 and Manmohan Singh arrived at Washington in July 2005. In March 2006, President Bush came to India. Condoleeza Rice brought an outline of the Grand Strategy of the Bush administration for India. She shared with Manmohan Singh that the "US was willing to help India to become a major power in the 21st century" and assured him of American cooperation to India (Balachandra:2005). The 10-years Defense Framework Agreement was signed for mutual cooperation in different areas of security. Agreed Minutes were already signed in 1995. Ending the three decades of opposition to Indian nuclear program, the US made civilian nuclear cooperation as the centerpiece of its policy. India availed of the opportunity and took full benefit of the American offer. This event shed the burdens of the past and brought dawn of a new era. The agreement was announced on 18 July 2005 during the Prime Minister's visit to Washington and India was taken as a "responsible state with advanced nuclear technology." In the joint statement, President Bush announced partnership with India by noting the significance of nuclear energy for providing cleaner and better environment" (Joint Statement..., 2005).

President Bush expressed his desire to work for gaining full civil nuclear energy cooperation with India. In this connection, Congress required to adjust the US laws and policies. The joint statement expressed that the US "will work with friends and allies to adjust international regimes to enable full civil nuclear energy cooperation and trade with India." The US showed a reversal in its position. Prime Minister Manmohan Singh conveyed that India "would take the same responsibilities on NSG and practices and acquire the same benefits and advantages as other leading countries with advanced nuclear technology, such as the United States". Both sides decided to take reciprocal steps to materialize their nuclear cooperation. India agreed to: identify and separate civilian and military nuclear facilities and programs in a phased manner and to file a declaration of civilian facilities with the International Atomic Energy Agency (IAEA); voluntarily placing civilian facilities under the IAEA safeguards; signing of an Additional Protocol for civilian facilities; continuation of its unilateral nuclear test moratorium; refraining from transferring enrichment and reprocessing technologies to states that do not have them, as well as to support global efforts to limit their spread; working with the US to conclude a Fissile Material Cut Off Treaty (FMCT); and working to secure nuclear materials and technology through comprehensive export control legislation and through harmonization and adherence to Missile Technology Control Regime (MTCR) and NSG guidelines (Albright and Basu:1998)

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## Significance of the July 2005 Agreement

The July 2005 joint statement was examined at different levels by experts, think tanks, politicians and commentators of media in both countries. There were a few reservations on different areas. Politically, agreement of July 2005 had the most important and far-reaching impacts. It established Indian relationship with the US without excluding Treaty of Friendship and Cooperation of 1971 between India and the Soviet Union. India was recognized as a de facto nuclear power and there was possibility of American favor for becoming a global power and permanent membership in the Security Council with veto power (Mansingh: 2006). This agreement removed thirty years old technological sanctions and provided multi layered cooperation of powerful economy of the world. It also offered energy options in nuclear area and made it a viable source for Indian flourishing economy. Strategically, this agreement was an enormous global leverage for India being partner of the US. It ensured India's security in its neighborhood vis-à-vis Pakistan and China. The US amended its domestic laws and tried to accommodate India by persuading the members of the NSG to resume nuclear cooperation and trade with India. President Bush toured India in March 2006 and both leaders issued a joint statement that was an outcome of new relationship. It was evidence of India's commitment for pursuing its strategic goals. From nuclear energy aspect, the deal was "an effort to strengthen India's ability to expand civilian nuclear energy and to contribute its large and rapidly growing electricity needs, rather than a closet 'atoms for war' effort that would have the effect of covertly accelerating the growth in India's nuclear arsenal" (Tellis: 2007). Rice said in her testimony of Senate Foreign Relations Committee that "Civil nuclear cooperation agreement with India will help meet its rising energy needs without increasing its reliance on unstable foreign sources of oil and gas, such as nearby Iran" (Tellis: 2007).

## Signing Statement and Initiatives of President Bush

The House of the Representatives agreed on 8 December 2006 to the conference report and passed the "Henry J. Hyde United States-India Peaceful Atomic Energy Cooperation Act of 2006" gaining 330 votes out of 359. On December 9, 2006, the Senate also extended a "unanimous consent" to the conference report and President Bush signed the bill and it became law on 18 December 2006. On the occasion of signing the bill, President Bush showed hope of strengthening the strategic relationship between the two countries. About particular provisions, it was stated that executive branch would construe two sections of the bill as advisory. one is about policy statements of Section 103 and other is the constraint of Section 104 (d) (2) for sending items to India that are out of the NSG guidelines. On the signing ceremony, it was also pointed out that the executive branch would construe provisions of the Act that mandate, regulate, or prohibit submission of information to the Congress, an international organization, or the public, such as sections 104, 109, 261, 271, 272, 273, 274, and 275, in a manner consistent with President's constitutional authority to protect and control information that could damage foreign relations, national security, the deliberative processes of the Executive, or the performance of the Executive's constitutional duties." The agreement strengthened the authority of the President "to waive the full-scope safeguards requirement for civil nuclear cooperation with a non-Nuclear Weapon State under the Atomic Energy Act of 1954." It also reaffirmed the US policy to control the enrichment and reprocessing technology by reiterating its commitment to the NPT by expressing its plan to strengthened nonproliferation around the world.(Squassoni:2007) A joint resolution of Congressional approval was required to come into force with seven requirements. These are: approval from Board of Governors of IAEA for agreement of nuclear safeguards; substantial progress for concluding an Additional Protocol; Indian support to conclude a treaty to ban fissile material production for nuclear weapons; standing with international community to prevent the transfer of sensitive nuclear technologies, particularly for enrichment and reprocessing purposes; Controlling nuclear, sensitive materials and technologies by taking necessary steps including adherence to NSG and MTCRV and other multilateral control regimes; preparation of a separation plan for Indian nuclear facilities; and to make India an exception, a consensus decision is required by the NSG

# **Consultation with Congress and Agreements for Cooperation**

The US concluded bilateral agreement for peaceful use of nuclear power that required provision of existing law. Atomic Energy Act of 1954 was amended by NNPA Act of 1978 to include "among other things, a requirement for fullscope safeguards for significant nuclear exports to non-nuclear weapon states." The main issue is the full-scope nuclear safeguards with fulfillment of its requirements. Its three provisions are about its restrictions. Section 123 of the AEA is to approve the treaty for cooperation. Section 128 is to get license for nuclear exports and last is Section 129 that requires eliminating nuclear export in case of a NNWS

that is testing nuclear devices or nuclear weapon program is working without fulfilling required steps for such activities. India has neither signed the NPT nor adopted the safeguards. Another reason is its nuclear weapons program that precludes it to adopt full-scope safeguards. (Bidwai: 2007).

The requirements in Section 129 prohibit exports to a those states that conducted a nuclear test after 1978 and are listed as NNWSs while made several nuclear explosions in 1998 (Atomic Energy Act of 1954, 2000). Section 123 of the AEA (42 U.S.C. 2153) specifies conditions, which are required to enter into nuclear cooperation. The US has concluded 123 agreements with 24 countries up to this time and India contains last number. Both Congress and the President felt that agreement required to be headed and governed by "Indiaspecific US Act or the Hyde Act," a specific law. The US had already an agreement with India, which was signed in 1963 and ended in 1993. Such agreements are called "framework" agreements that never provide guarantee for cooperation or transfer of nuclear material, but determine the terms of reference and extend authority for cooperation. The US-India treaty of 1963 was strange in its nature as it facilitated Tarapur reactors for fuel while other US nuclear cooperation agreements never included such guarantees (US General Accounting Office: 1985).

In October 2008, despite passing more than three years, the deal had yet to become a "Done Deal". After passing the Hyde Act in December 2006, Congress gave a free hand to India. Later in March 2007, the 123 agreement was finalized. There are three hurdles to be crossed, at first step India has to negotiate its specific safeguards with IAEA. The second is for the US to persuade NSG to amend its guideline and made India an exception to its mandate. Finally, the US Congress had to pass the 123 agreement to incorporate the IAEA and NSG requirements (Chari:2009)

In Indian case, the most difficult step is to meet full scope safeguards' requirements that are compulsory due to India's status of non-nuclear weapon state under the rules of NPT, as it tested nuclear device after January 1, 1967 Under the law, the President has the authority to exempt any requirement of Section 123a. The exempted treaty would not enforce "unless the Congress adopts, and there is enacted, a joint resolution stating that Congress does favor such agreement" (Export Administration Act of 1985). It indicates that compulsory approval from both the houses of Congress is necessary for the agreement even if it does not fulfill requirements of the Section 123 a. Congressional approval of an agreement would exempt the concerned state that has not adopted full-scope safeguards (Section 123 a. (2)) by waiving the Nuclear Regulatory Commission's (NRC) "obligation for full-scope safeguards as an export license authorization criterion under Section 128." However, ultimate authority rests with Congress to review export license authority annually after execution of the agreement.

## Separation Plan for Civilian and Military Facilities

In March 2006, both the countries agreed on separation plan. The key points of this separation plan are: Eight indigenous Indian power reactors will be placed under an India specific safeguards agreement, the total number of power reactors is 22 and 14 will be brought under safeguards (6 are already under safeguards).

Future power reactors would be placed under safeguards, if India declares them as civilian. Some facilities in the Nuclear Fuel Complex e.g., fuel fabrication will be specified as civilian in 2008.

Nine research facilities and three heavy water plants would be declared as civilian.

The following facilities and activities are outside the separation list:

Eight indigenous Indian power reactors

Fast Breeder Test Reactor (FBTR) and Prototype Fast Breeder Reactors (PFBR) under construction Enrichment facilities

Spent fuel reprocessing facilities (except for the existing safeguards on the Power Reactor Fuel Reprocessing (PREFRE) plant

Research reactors: CIRUS (which will be shut down in 2010), Dhruva, Advanced Heavy Water Reactor Three Heavy water plants

Various military-related plants (e.g., prototype naval reactor) (Squassoni: 2007). Apart from this, the US suggested India to place its FBRs under safeguards either current or future. About FBRs, India claimed to prepare with domestic test program, still in its initial stages and not in a position to be declared as civilian. India has planned to use FBRs for fulfilling energy needs in future to cover deficiency of natural uranium with vast thorium reserves that are found in India (Sudarshan: 2006).

Indian scientists feel fear of disclosure of their indigenous research by placing FBRs under safeguards that would bring external inspections and India's intellectual property rights may be diluted over this new technology in case of monitoring of every process and stage of Indian research laboratories (Malik and Kanwal: 2006). The Chairman Atomic Energy Commission Kakodkar commented, "FBRs' declaration would

harmful to Indian weapons program". Nuclear experts are wellaware that origin of the FBR technology is in France and Indian claim of ingenuity is not reliable. Some Indian scientists objected on American insistence for bringing maximum number of nuclear facilities under safeguards as an attempt to control Indian fissile material production. It was strongly resisted by the Indian Atomic Energy Commission and Prime Minister Singh also supported his scientists' viewpoint and refused to accept safeguards on indigenous fast breeder program. He said, "We have taken into account our current and future strategic needs and programs after careful deliberation of all relevant factors, consistent with our nuclear doctrine. There has been no erosion of the integrity of our nuclear doctrine, either in terms of current or future capabilities...it will be the autonomous Indian decision as to what is 'civilian' and what is 'military'. Nobody will tell us what is 'civilian' and what is 'military'... the number of thermal nuclear reactors that India would agree to put under civilian list would be equal to 65% of the total installed thermal nuclear power capacity.

Commenting on Singh's statement in his testimony before Senate Foreign Relations Committee, Gary Milhollin labeled this offer as "a counterfeiter with a 22 room house, which offers to let the police look into 14 rooms as long as they stay out of all the others. It is open secret that 8 undeclared will make the bomb" (Milhollin, 2006). India succeeded in keeping the FBRs out of the civilian list, which was a great concession as Perkovich commented, "This is Santa Claus negotiating. The goal seems to give away as much as possible" (Weisman: 2006). According to an IAEA explanation, since 1974, the duration of INFCIRC-66 type agreements is linked with actual use of transferred items, rather than a fixed time, which would help in lifting safeguards on the reactors if they are no longer using safeguarded material (Squassoni, 2007). It is perceived that this was due to violation of using peaceful nuclear technology for nuclear weapons purposes at the time of Indian nuclear tests of 1974. The Bush administration confirmed, "Any items sent to India would be subject to safeguards, and implementation of the Additional Protocol that would provide further assurances of the non-diversion of such items or material." The Indian officials assured of adopting voluntary safeguards arrangement like NWSs strictly. (Gilinsky and Leventhal: 1998). The Bush administration emphasized that "India's separation plan must be credible, transparent, and defensible from a nonproliferation standpoint, and safeguards must contribute to nonproliferation goals." For some analysts, if all power reactors that supply electricity would list as civilian in terms of their civilian use then separation plan may not appear reliable. In the past, CIRUS, a reactor for peaceful nuclear use, produced plutonium for nuclear weapons. Secretary Rice opined that "more reactors under safeguards mean more transparency, more physical security, better nuclear safety, and therefore increased safety for the United States" (Rice, 2006). The enrichment, reprocessing plants, and breeder reactors under safeguards would support the National Security Strategy 2002 for combating weapons of mass destruction as the US pledged to "continue to discourage the worldwide accumulation of separated plutonium and to minimize the use of highlyenriched uranium".(Gilinsky and Levanthal:1998)

# **Evolution of Indo-Us Nuclear Deal**

The Indo U S Civil nuclear agreement has been also known as the Indo U S nuclear Deal which has been referred as a bilateral deal on civilian nuclear co operation between the USA and the Republic of India. The framework for this deal was on July 18 2005 in a joint statement that has been issued by the then Indian Prime Minister Man Mohan Singh and the then U S President George W. Bush under which India agreed to separate its civil and military nuclear facilities and place all its civilian nuclear facilities under the watch of International Atomic Energy Agency (IAEA) safeguards and in exchange, the U S agreed to work with India towards a fully functional civil nuclear co operation with India. The U S - India deal had took more than 3 years, to come to a reality as it had to go through multiple complex stages that includes amendmenting some of the U S domestic law, as well as civil military nuclear separation, plan in India. This deal has been seen as a new opening in U S India relations and also introduces a new aspect into international non proliferations efforts. First in order to introduce the joint statement which was released by President George W Bush on the month of July 18 2005, the deal is also entitled to lifts a 3 decade U S sanctions on nuclear trade with India. This provides US assistances to Indian civilian nuclear energy programs and also to expand U S - India co-operation in the field of energy and satellite technology. (Nilova Ray Chaudhary: 2007)

## Terms of the Deal

The comprehensive details about the deal include the following. India has agreed to allow the inspectors from the IAEA, the U N nuclear Watch Dog group, have complete access to its civilian nuclear programs. India has also promised to place 14 of its 22 civilian nuclear power reactors under IAEA safeguards

permanently. India has also promised that all future civilian thermal and breeder reactors shall be placed under IAEA safeguards permanently.

India commits to sign in an additional protocol which allows more intrusive IAEA inspections of its civilian facilities.

India agrees to continue its moratorium on nuclear weapon testing.

India commits to strengthening the security of its nuclear arsenals.

India works toward negotiating a FMCT with the U.S.

US companies will be allowed to build nuclear reactors in India and provide nuclear fuel for more of its civilian energy programme. (Annapurna Nautiyal:2006)

## **U.S Objectives and Interests**

The move of the U S president George W Bush's administration concerning the nuclear deal is being termed as an unusual one because of the nuclear relationship crisis between both India and the U S has historically been one of the prime factors responsible for India's problematic relations with the U S, Interestingly, India, which is now currently being lured and being pressurized by the United States sanctions, pressure and consequent denial of high technology because of its military based nuclear program, and its decision to not to sign the highly discriminatory Non nuclear proliferation treaty. Since India had already developed most of it's nuclear program indigenously, therefore, India has always against the International Atomic Energy Agency guidelines on nuclear safeguard, control and inspection systems in its nuclear plants.(C.Uday Bhaskar:2007) Due to this India not only lacked access to the International Atomic Energy Agency trade, but also found it Very difficult to get the supplies that are needed for running its nuclear power plants which have always been considered as very crucial in meeting India's energy needs. Ironically, India's nuclear program like the program like the prestigious Indian Institutes of Technology (IIT's) was initiated with U.S. help. The U S policy has always moves at aiming to enable India to overcome obstructions for its Wide range of global aspirations that were seen as very important matter for U S interests in the post-Cold War era of changing the priorities in the region and also developing a number of new alliances and friendships. As these moves, especially after the 9/11 counter terrorist attacks initiated by U.S. policy, were not only unexpected and unusual but took the majority of think tanks and policy analysts by surprise. Though a long historical legacy of bitterness, uncertainties, distance and differences among the world's oldest and largest democracies was not that easy to overtook, yet the civil nuclear deal, despite the inherent controversies, has certainly opened a new vista for the relationship between India and the United States. (Neil King Jr.: 2007)

#### Objectives and Interests of India

India came out the major beneficiary by signing this deal with the U S. This has been considered as a remarkable achievement for India to expand its nuclear program in its domestic terrain. The Indo US nuclear 'deal would greatly increase the Indian capacity of developing more and more nuclear warheads, since it provides complete assurance on uninterrupted nuclear fuel supply. Because of this nuclear deal, India had become the one and only country in the World with the de-facto nuclear status despite of the fact that India is not at all a signatory of Non Proliferation Treaty (NPT). While commenting the significance of the nuclear deal Prime Minister Man Mohan Singh said, "The agreement would not hinder or otherwise interfere with India's nuclear activities, including our military facilities." One of the former senior Indian intelligence official reaffirmed when he said that "the assurance of nuclear fuel supply from the U S and the Nuclear Suppliers Group would free India's existing capacity to produce highly enriched uranium and plutonium for its nuclear weapons program. Under the deal, India will get the capacity to produce 50 warheads a year." The Indo U S nuclear agreement will improve India's nuclear arsenal quantitatively as well as qualitatively. Moreover, the deal does not have any other provision which cannot force India to give up its right for nuclear testing. Similarly, India has not agreed to sign the Comprehension Test Ban Treaty (CTBT). (Neil King Jr.:2007)

## Conclusion

When the whole nuclear deal is viewed under the limited options for other sources of energy and also the pressures from international community for using clean energy sources on account of the threat of global warming there has been a little choice left for India because of its isolation in international relations. Since India willingly imposed a moratorium on more nuclear tests after the 1998 series of nuclear test, and therefore the acceptance of the civilian nuclear deal would only assist India in its economic growth and use also its full economic potential, India would also have to move forward and clutch the nuclear deal. As an independent nation India has always been maintained its freedom of action and kept an independent foreign policy. Because of this any pressure on India would be seen as a compromise in its democratic standard

which will affect its concerned citizens. Actually, in the recent weeks in which, a dramatic situation has been witnessed in the Indian political arena with the political parties of India being divided into clear different camps. Among the Indian political parties there raised many supporters and non-supporters to the Indo U S civilian nuclear deal. This scene began to take shape with the Manmohan Singh led UPA government's decision to go further to the International Atomic Energy Agency and the Nuclear suppliers group to fulfill the complete requirements to make the deal a reality, and even the left parties began to withdraw their support from the ruling government. This situation left the political ground open to all sorts of pressures. India had to witness an ugly political scene where not only the Congress led UPA government received support from unexpected quarters, but allegations were also made that in the parliament about how the money changed hands to sustain and save the government. The doubts on the stability of such sort of government was in the air which is survived by using every possible tactic are still being raised. However it is also assumed that when the government has been passing the hurdles for sustaining the confidence motion, it would be able to move further in time to actually finalize the nuclear deal before the U S goes to the election mode, and to ensure the economic growth of the U S through the way of nuclear energy. It is still a turbulent situation because the time constraints could also decide the fate of the nuclear deal. In view of the several complications, problems and dilemmas, therefore, India not only needs to tread this path cautiously, but also walk the tightrope of progress and growth with confidence and control.

#### NOTES.

The Indo Us Civilian nuclear agreement also known as the Indo Us nuclear deal refers to a bilateral accord on civilian nuclear co — operation between the United States of America and the Republic of India. The framework for this agreement was a July 18 2005 joint statement by Indian Prime Minister Man Mohan Singh and US President George W. Bush under which India agreed to separate its civil and military nuclear facilities and place all its civilian nuclear facilities under International Atomic Energy Agency (IAEA) safeguards and in exchange, the United states agreed to work toward full civil nuclear co-operation with India.

The deal is seen as a watershed in U.S India relations and introduces a new aspect into international non-proliferations efforts. First introduce into the joint statement released by President Bush on July 18 2005, the deal lifts a 3 decade U.S. morotorian on nuclear trade with India. It provides U.S. assistances to India's civilian nuclear energy programs and expands U.S.- India co-operation in energy and satellite technology.

Robert Blackwill, the former US Ambassador to India, contents that the deal would make a major contribution towards in mitigating India's energy deficits, which would otherwise undermine its efforts to reach an eight percent GNP growth rate over the next two decades, and bring hundreds and millions of Indians out of abject poverty

The US ambassador to India, David Mulford, contends that the deal is an "answer to India's long term energy problems" Critics, however, argue that importing high- priced reactor dependent on imported fuel makes little economic or strategic sense.

Under the new civil nuclear agreement, India has agreed to separate its civilian and military programs and to put two-thirds of its existing reactors, and 665% of its generating power under international safeguards for verification. In return, United States will supply nuclear fuel and technology to India.

India came out the major beneficiary of this deal. This is a remarkable achievement for India to expand its nuclear program. The Indo-US 'deal would greatly enhance the Indian capability of developing more nuclear warheads, as it provides assurance on uninterrupted nuclear fuel supply.

As the result of the deal, India became the only country of the World with the de-facto nuclear status despite of the fact that India is the non signatory of Non-Proliferation Treaty (NPT).

The Indo-US agreement will improve India's nuclear arsenal qualitatively as well as quantitatively. Furthermore, the deal does not have any provision which can allow India to give up its right for nuclear testing. Similarly, India has not agreed to sign the Comprehension Test Ban Treaty (CTBT).

Though President Clinton's visit to India in March 2000, the first undertaken by any U.S. President after a gap of 22 years, promoted the movement of relations with India and removing acrimony in their relationship, instead of putting pressure on the nuclear issue, preferred to adopt some other methods to bring India under the nuclear regimes. The nuclear agreement intimated during Indian Prime Minister Man Mohan Singh's visit to the United States in July 2005, and finalized during President Bush's visit to India in March 2006, was therefore termed as exceptional and unique because it was with a non-NPT signatory country and U.S. law prohibits any agreement with the countries that refuse to follow the guidelines of the IAEA, and thus not sign the NPT

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