

**Octavio González Segovia\***

Hertie School of Governance (Berlin, Germany)

gonzalez-segovia@transnationalstudies.eu

Choosing to comply with the U.S.-India civil  
nuclear agreement. Factors leading to state  
compliance\*\*

*La decisión de cumplir con el acuerdo nuclear civil entre  
Estados Unidos y la India. Los factores que conducen al  
cumplimiento por parte del Estado*

*A decisão de cumprir com o acordo civil nuclear EUA-Índia.  
Disposições que levam ao Estado à sua execução*

\* Doctoral student in Political Science at the Hertie School of Governance (Berlin, Germany).

\*\* This article is the product of the author's research on the India-U.S. 123 civil nuclear agreement.



### Abstract

State compliance with international commitments is uneven. However, the perception of which countries will and will not comply and to what extent can be biased. Some scholars assume that the U.S. will abide by the India-U.S. 123 civil nuclear agreement, whose main objective is to supply India with nuclear fuel. Conversely, there is a perception that India will not honor its respective commitments (e.g. to maintain safeguard measures in its nuclear facilities). The present study contributes to expand the knowledge on the factors affecting compliance within the realm of nuclear trade by analyzing a non-binding instrument negotiated between two asymmetrical actors. Drawing on Peter Haas' compliance theories, I analyzed the presence/relevance of international institutional and ideational factors which in combination with domestic politics and structures can influence the actor's decision to comply. I found that we can expect India to more fully comply with the provisions of the treaty than the U.S. Depending on whether certain institutional or ideational factor intervenes; the U.S. is either not capable or unwilling to comply. Its will to comply could be affected *inter alia* by important domestic actors concerned with the application of the Hyde Act, as evidenced during the ratification process. Therefore, contrary to the mainstream view, the 123 Agreement neither enables India to achieve energy security nor ends thirty-four years of nuclear isolation.

**Key words:** India-U.S. 123 Agreement, Compliance, Strategic partnership, Energy security, Nuclear trade

### Resumen

El cumplimiento del Estado con los compromisos internacionales no siempre es parejo; es posible sesgar la apreciación de qué países van a cumplirlos y cuáles no, y en qué medida. Algunos estudiosos suponen que los EE.UU. cumplirán el Acuerdo nuclear civil 123, firmado con la India y cuyo principal objetivo es suministrar combustible nuclear a éste país. Existe también la percepción de que la India no cumplirá con sus compromisos respectivos, como por ejemplo, en lo que se refiere a mantener las medidas de salvaguardia en sus instalaciones nucleares. Mediante el análisis de un instrumento no vinculante negociado entre dos actores asimétricos, el presente estudio contribuye a un mejor entendimiento de los factores que afectan el cumplimiento de los acuerdos firmados en el ámbito del comercio nuclear. Sobre la base de las teorías de cumplimiento de Peter Haas, analizo la presencia/relevancia de los factores institucionales e ideológicos internacionales que en combinación con la política y las estructuras nacionales pueden influir en la decisión del actor a cumplir. Me parece que podemos esperar que la India cumpla más plenamente con las disposiciones del tratado que los EE.UU.; dependiendo

de la intervención de ciertos factores institucionales o ideológicos, los EE.UU., no podría o no estaría dispuesto a cumplir. Su voluntad de cumplir podría verse afectada, entre otras cosas por importantes actores nacionales interesados en la aplicación de la Ley de Hyde, como se evidencia en el proceso de ratificación. Por lo tanto, en contra de la opinión dominante, el Acuerdo 123 no le permite a la India lograr la seguridad energética ni termina con treinta y cuatro años de aislamiento nuclear.

**Palabras claves:** Acuerdo 123 India-U.S, Cumplimiento, Asociación estratégica, Seguridad energética, Comercio nuclear

### Resumo

O cumprimento dos compromissos internacionais pelos governos não tem sido equitativo; porém, a percepção de quais os países iriam respeitar tais acordos e quais não, e até que ponto, pode ser subjetiva. Alguns teóricos conjecturam que os EUA irão adotar o acordo nuclear civil 123, assinado entre a Índia e os EUA, cujo principal objetivo é aprovisionar à Índia com o combustível nuclear. Por outro lado, existe a impressão de que a Índia não irá honrar seus respectivos compromissos – como por exemplo, manter as medidas de salvaguarda em suas instalações nucleares. O presente estudo, pelo meio da análise de um instrumento não vinculativo celebrado entre dois atores dessimétricos, tem o propósito de contribuir para um maior entendimento dos fatores conexos com o cumprimento dos acordos dentro do campo do comércio nuclear. Na base das teorias de cumprimento de Peter Haas, eu analiso a presença/relevância dos fatores institucionais e ideológicos internacionais que, juntamente com a política e as estruturas internas, podem influenciar a decisão do ator para cumprir. Posso concluir que é possível esperar que a Índia aperfeiçoe com maior compromisso as disposições do Tratado do que os EUA. Dependendo de alguns fatores institucionais ou ideológicos que interferem, pode ser que os EUA não possa ou não almeje cumprir com os acordos; sua vontade para cumprir poderia ser afetada, nomeadamente, por importantes atores nacionais interessados na aplicação da Lei Hyde, como evidenciado durante o processo de ratificação. Deste modo, ao contrário da visão tradicional, o Acordo 123 nem permite à Índia obter a segurança energética nem conclui com 34 anos de isolamento nuclear.

**Palavras-chave:** Acordo 123 Índia-U.S., Cumprimento, Parceria estratégica, Segurança energética, Comércio Nuclear

## Introduction

The perception of compliance concerning the India- U.S. 123 “agreement”<sup>1</sup> is biased. It is assumed as a matter of fact that the U.S. will comply with its energy security-related non-binding commitments. Conversely, there is a widespread perception that India may decide not to honor its commitments (Kimball & McGoldrick 2007; Mehta, 2007; Perkovich, 2005:12; Talbott, 2005; Thyagaraj & Thomas 2006:369; Weiss 2007:446-457). Among them, some tend to believe that India could choose not to abstain from conducting another nuclear test or may well choose to violate the International Atomic Energy Agency (IAEA) binding safeguard measures imposed on its civilian nuclear plants. Building upon Peter Haas’ theoretical framework on compliance (Haas, 2000:43-64), and based on content analysis of the treaty and associated documents I offer an alternative interpretation that challenges the mainstream view. In other words, I argue that the U.S. may choose not to comply, whereas India could be institutionally and ideationally more constrained to do so.

The India-U.S. cooperation agreement concerning peaceful uses of nuclear energy<sup>2</sup> has been portrayed by authorities and scholars from both countries as a turning point in the U.S.-India diplomatic relationship (Burns, 2007:135; Holmes, 2007). The shallow and ambiguous agreement may lead, however, to another period of estrangement. Both governments invoked energy security concerns as a justification to sign it. Nevertheless, they did not include a definition of energy security in the text, which complicates the delimitation of their respective responsibilities. Additionally, it was not made explicit whose energy security the treaty intended to accomplish (Burns, 2007:137, 143). Nonetheless, a few authors (Iyengar, Gopalakrishnan, Prasad, *The Hindu*, 31 May 2007; Perkovich, 2005; Sharma, 2007:167; Verma, 2007:3281-3282; Weiss, 2006:21-63) have called into question the feasibility of the provisions to attain what is considered as one of the main objectives of the 123 Agreement, i.e. to achieve Indian energy security. Scholars on the whole

---

1 It would be normal to indicate the shallow and contested nature of this treaty by enclosing it in inverted commas, however since the article is centrally concerned with the analysis of the treaty per se such a form of enclosure seems unnecessary. I have rather opted to show the inconsistencies and the flaws of it.

2 Based on the conditions set forth in section 123 of the U.S. Atomic Energy Act of 1954. The terms 123 agreement; India-U.S. civil nuclear agreement; and India-U.S. 123 agreement are used interchangeably

are concerned with the impact the agreement may have on international law, the international non-proliferation regime and the non-proliferation treaty (see Gahlaut, 2005; Galluci, 2006; Ganguly & Mistry, 2006:15; Heinzelman, 2008:4-5; Krepon, 2007:15-17; Talbott, 2005; Tellis, 2006:7; Wable, 2008:2).

Moreover, there has not been an attempt to theoretically explain the factors that may affect U.S. compliance with its commitments from a constructivist and institutionalist perspective. In this respect, is the 123 Agreement, as stated in the text of the treaty, the means to achieve Indian energy security on a stable, reliable and predictable basis? If so, what are the factors that may influence the U.S. decision to comply with its energy security commitments?

According to Peter Haas (2000), we know very little about the degree to which states comply with international commitments and empirical studies suggest that national compliance is uneven at best. Since there are neither well-established patterns of state compliance nor well-defined expectations for patterns of compliance on the part of decision makers; Haas suggests identifying the factors that may influence compliance instead (Haas, 2000:44). The present study contributes to expanding knowledge on the factors affecting compliance within the realm of nuclear trade by analyzing a non-binding instrument –the 123 Agreement– negotiated between two asymmetrical actors –the United States and India–. To do so, I follow Haas' theoretical framework and analyze the presence/relevance of international institutional and ideational factors which in combination with domestic politics and structures may affect an actor's decision to comply. The institutional factors that were taken into consideration were: monitoring, verification, horizontal linkages, nesting, capacity building, national concern and institutional profile. In the case of the ideational factors affecting compliance, I focus on three factors: conviction, beliefs and learning.

Although Haas' theoretical framework was conceived to assess compliance in different areas –including arms trade and arms control regimes– nothing precludes its application to the realm of nuclear trade, because the above mentioned factors are also present in the case studied here. However, it is important to recognize the possible limitations and shortcomings that may arise from the adaptation of a theory initially devised to explain factors affecting a state's decision to comply with non-proliferation commitments.

In this respect, further research is needed to assess the degree of compliance and the factors affecting compliance in activities in which compliance is taken for granted such as nuclear trade. We may assume that American nuclear companies are eager to trade with India; however the decision to comply is not entirely in their hands. Some other potential avenues for research may include compliance of developed countries at the multilateral level, as well as compliance among asymmetrical actors.

### **Research design**

I followed the structure of the 123 Agreement text and conducted a content analysis of the energy security commitments contained in relevant articles/sections of the treaty. To check the consistency of what the signatories agreed I compared the treaty's clauses with the provisions of the Hyde Act, the Atomic Energy Act and the IAEA-India safeguards agreement (IISA). Additionally, I contrasted those commitments with statements found in Indian and U.S. documents (e.g. letters and notes exchanged by the legislative and executive powers), and with declarations issued by relevant political actors throughout the negotiation and ratification processes. Concerning the actors' declarations, I analyzed primary sources, such as newspapers and secondary sources.

The paper is organized in the following way: I begin by briefly situating the 123 agreement within the broader interests of the strategic partnership between India and the United States. Then, following the structure of the agreement, I explain Haas' compliance theory and, when pertinent, I apply it to an analysis the clauses of the treaty and the associated documents. Finally, I discuss the implications of the findings for India's energy security.

### **The 'Strategic Partnership' between the United States and India**

#### *The beginning of a beautiful friendship*

In November 2001 President George W. Bush and Prime Minister Atal Behari Vajpayee decided to commit their countries to a strategic partnership: However, the initiative would not gain momentum until January 12, 2004, when both leaders officially announced their shared vision "increasingly based on common values and interests", and agreed to start negotiations to pursue a strategic association in four areas, i.e. high technology trade, civil nuclear

cooperation, civil space cooperation (Burns, 2007:135; US Embassy in Delhi, 2008), and missile defense (White House, 2004). Negotiations culminated in July 2005 with the completion of the Next Steps in Strategic Partnership which allowed for expanded bilateral commercial satellite cooperation, as well as the removal and/or revision of some U.S. export license requirements for certain dual-use and civil nuclear items (White House, 2005).

Although the 123 Agreement is regarded by Burns as “the elephant in the room”, the other three areas of the Strategic Partnership are also highly profitable. Millionaire contracts have already been awarded to U.S. aeronautic and defense companies such as Boeing Corporation and Lockheed Martin and many more are expected (“Lockheed Martin...,” 2012). For instance, in January of 2006, Air India formally announced an order agreement to buy 68 airplanes valued at more than \$11 billion from the Boeing Corporation. The operation was described as: “the single largest commercial airplane order in India’s civil aviation history” (Boeing, 2008).

The Strategic Partnership in general and the Civil Nuclear or 123 Agreement in particular (Burns, 2007), have been portrayed by authorities of both countries as a turning point in U.S.-India diplomatic relationships. For some, it signals a “new era of trust and cooperation” (Holmes, 2007), and many referred to it as the end of an epoch of 34 years of nuclear isolation for India. In contrast to the school of thought which argued the 123 Agreement approval would: terribly damage India’s relations with the U.S., bring international isolation, and undermine India’s economic reforms (Mohan, 2003:90; Narlikar, 2006:59-76), the Agreement’s approval may have, in fact, represented the triumph of the Indian school of thought which believed that conducting nuclear tests would force the U.S. to “take India seriously.” The costs India may incur by subjecting its energy security to the vagaries of the 123 Agreement provisions are, however, potentially too high to mark India’s *de facto* power nuclear weapon’ status.

#### *The Treaty and the associated documents*

As indicated earlier, drawing on Haas’ theoretical framework, I sought to determine the presence or absence of institutional and ideational factors that may influence the U.S. decision to comply with the 123 Agreement. For that



purpose, I conducted a content analysis of the 123 Agreement text<sup>3</sup>, as well as relevant documents<sup>4</sup>. To determine possible levels of compliance, I looked for the presence or absence of following institutional factors: monitoring, verification, horizontal linkages, nesting, capacity building, national concern, and institutional profile. Regarding the ideational factors, I analyzed whether conviction, beliefs, and learning could affect a government's decision to comply. Additionally, when it was pertinent, I determined the influence on compliance of domestic politics and structures (Haas, 2000: 43-64).

For Haas, states construct or choose to comply with international commitments, thus questioning the applicability of the *pacta sunt servanda*. He argues that some of the treaties are frequently drafted in ambiguous ways, so that their commitments cannot be interpreted uniformly. There are countless self-interest motivations why states may adopt norms in soft law instruments regardless of any expectation of successive compliance (Haas, 2000:62). The 123 agreement is one example of such an instrument, which is characterized by vagueness, ambiguity, and shallowness reflected in non-binding commitments. It is notable that even some U.S. high ranking officials have downgraded it. For example, in a letter submitted to Congressman Tom Lantos in January 16, 2008, Assistant Secretary of State Jeffrey Bergner referred to the India-U.S. 123 agreement as a framework agreement. When addressing Lantos question regarding the U.S. right to unconditionally cease cooperation, Bergner answered that the agreement “does not compel [the U.S. to enter into] any specific cooperation” (US Department of State, 2008:21). The 123 Agreement preamble recognizes, as a stated fact, the importance of civilian nuclear energy for meeting rising global energy demands in a cleaner and more efficient way, thus excluding cheaper, cleaner and more efficient forms of energy (e.g. wind energy, which holds promise for India). As specified in the preamble, the parties aim to cooperate compre-

---

3 The agreement for cooperation between the United States and India concerning peaceful uses of nuclear energy (123 Agreement) comprises seventeen articles, a preamble and a definition's section (article one). Articles one, two, four, five, ten, twelve, thirteen, fourteen, fifteen and sixteen are directly linked with the commitments of the parties. For its relevance to the present study, those are the articles that I analyzed in this section.

4 The referred documents are: The July 2005 Joint Statement; the January 2006 Henry J. Hyde U.S.-India Peaceful Atomic Energy Cooperation Act; the August 2008 Agreement between India and the IAEA for the application of Safeguards to civilian nuclear facilities; as well as other documents exchanged between the U.S. Department of State and the Congress, and between Indian left parties and the UPA Indian government.

hensively “in the full development and use of nuclear energy for peaceful purposes as a means of achieving energy security, on a stable, reliable and predictable basis” (US Department of State, 2007, preamble). However, it is not clear whose energy security the agreement is intending to ensure, the mechanisms to attain it, nor its meaning. As a consequence, the agreement is open to misinterpretation; one could assume (wrongly) that energy security means the same for both countries and is achieved in the same ways. The lack of clarity, therefore, allows for multiple and contradictory interpretations. The parties to the agreement deliberately chose not to define the most crucial term. As a result, it becomes difficult to determine whether the objective is being attained.

In addition, the 123 Agreement specifies the two states wish to cooperate on the basis of equality, reciprocity and non-interference in each other’s internal affairs and with due consideration for each other’s nuclear programs. In the text, it is nevertheless stated that the U.S. seeks to enable full civil nuclear cooperation with India, but not conversely. It is also stipulated that the parties note “their respective commitments to safety and security of peaceful uses of nuclear energy” (US Department of State, 2007, preamble). Furthermore, the parties affirm their support to the IAEA safeguards system, which they regard as applicable to both countries; however no linkages are established between the security commitments imposed on India - in the form of the IAEA safeguards, - and the ways to achieve its energy security.

Apart from omitting the definition of energy security, other core concepts are absent from Article One of the 123 Agreement. There is, for instance, neither a definition of what the parties alluded in Article Two as “a strategic nuclear fuel reserve” to guard against any disruption of supply, nor is there an agreement on the characteristics of such reserve. Moreover, the parties did not define “disruption of fuel supply” nor categorized the different kinds of disruptions. The point becomes particularly critical for delimiting the responsibilities of each of the parties under those circumstances, and above all, for ensuring the uninterrupted operation of Indian nuclear reactors. This affects not only India’s energy security, but also impacts India’s responsibilities with both the IAEA and the United States.

Bergner, addressing Lantos' question, recognizes the lack of a definition for "disruption of supply" and regards the notion that the Indian government tacitly agreed on a definition that was not included in the wording of the agreement as true. He states that disruption of fuel supply is "meant to refer to disruptions in supply to India that may result through no fault of its own". In other words, he alludes to those disruptions resulting from "trade wars; market disruptions in the global supply of fuel; and the possible failure of an American company to fulfill any fuel supply contracts it may have signed with India" (US Department of State, 2007:8-9).

*Scope of cooperation*

Of the seventeen articles contained in the 123 Agreement, Article Two is one of the most controversial and ambiguous. As per the agreement text, each state is required to enact the accord in conformity with its applicable treaties, national laws, regulations and license requirements concerning the use of nuclear energy for peaceful purposes (US Department of State, 2007, art. 2.1). Hence, there are many possible interpretations of Article Two, Section One, including the possibility that both domestic and international legislatures may decide to override the treaty provisions.

In the parliamentary notes exchanged between the UPA and the Left-wing parties in the Committee on India-U.S. Civil Nuclear cooperation, the left parties voiced concern that U.S. laws would override the treaty. For them, it is clear that specified and unspecified U.S. laws such as the Hyde Act and the U.S. Atomic Energy Act of 1954, as well as international treaties signed by the U.S, but not by India "will directly impinge on the nuclear agreement." Additionally, Article Two, Section One also means that any future legislation adopted by the U.S. will also apply to India. (Left Parties, 2008:19). Contrary to this interpretation, the UPA responded to the left parties, arguing that the only internal law linked to the 123 Agreement is the U.S. Atomic Energy Act, a law which was amended by the enactment of the Hyde Act. For the UPA, the Hyde Act is only applicable to the U.S. administration and not to India. India's commitments would derive exclusively from the 123 Agreement. Customary International law –the UPA argued– guarantees that the Hyde Act does not apply to India or override the bilateral nuclear agreement (Left Parties, 2008:32).

Nevertheless, Assistant Secretary Bergner made the opposite argument and disagreed with Congressman Lantos. He emphasized that his predecessor “twice made it clear that the 123 Agreement is in full conformity with the Hyde Act”. Bergner added that “the [U.S.] Administration is confident that the proposed agreement is consistent with the legal requirements of both the Hyde Act and the [U.S.-India Peaceful] Atomic Energy Act”. Nonetheless, he acknowledges that the requirement for the full-scope safeguards constitutes an exception, thus invalidating Lantos claim that the 123 Agreement overrides the Hyde Act regarding perceivable conflicts, discrepancies or inconsistencies (US Department of State, 2007:2).

According to Haas, a state’s choice to comply may be affected by the issue-related context in which such choice is made. The array of hierarchical influences on states’ compliance with international obligations, - what Vinod Aggarwal refers to as “nesting” - may be of a conceptual or legal nature. ‘Nesting’ is conceptual when it reflects the causal connections that state decision makers believe tie together various issues. It is legal when choices to comply in one issue-area may be legally prescribed by another domain that has legal precedence, or is regarded as politically more influential. Consequently, compliance with the 123 Agreement commitments is at best, contingent on the Hyde Act conditions and on the legal and political pre-eminence conferred to it by the U.S. Congress, and ratified by the U.S. Department of State in various statements (Haas, 2000:57).

Haas argues that states may engage in three interconnected types of learning about compliance. They may learn to comply with specific instruments, with related instruments in the same area of activity, or they can learn about the linkage between issues, which may lead them to decide to change their compliance patterns accordingly over time (Haas, 2000:63). Hence, what was declared in Article 103b, Section Four of the Hyde Act, which established the U.S. policy guidelines regarding South Asia, including Iran, constitutes an example of the way states learn to connect different issues. Point number four expressly established that the U.S. is required to assure India’s comprehensive and functional involvement in U.S. efforts to “dissuade, isolate, and if necessary sanction and contain Iran for its efforts to acquire weapons of mass destruction including the capability to enrich uranium or reprocess nuclear fuel” (US Congress, 2006).

The prior connection became evident in February 2006, when the U.S. exerted pressure on India to support its motion against Iran at the IAEA (Verma, 2007:3291), thus contributing along with twenty six countries to refer Iran to the U.N. Security Council. Scholar Harsh Pant, who would seem to concur with this assessment, suggests that “India’s traditionally close ties with Iran have become a major factor influencing how certain sections of U.S. policymakers evaluate the U.S.-India partnership”. The Bush administration clearly warned India that if it decided not to support the U.S. motion against Iran, the U.S. Congress would possibly resolve not to approve the 123 agreement (Pant, 2007:503-504). As a consequence, India had no other option than to cede to U.S. pressure, thereby postponing talks on the strategic Iran-Pakistan-India pipeline (IPIP) (Verma, 2007:3284).

As stated in Article Two, Section Two, the purpose of the 123 Agreement is to “enable full civil nuclear energy cooperation between the parties in all relevant areas.” However, as I will demonstrate in the following sections, this is not the case. This commitment was also questioned by left-wing Indian parties, who linked it to Hyde Act Sections 104(d)(Four)(i) and 104(d)(Four)(B), expressly deny the export of any equipment, components or materials related to uranium enrichment, spent-fuel reprocessing or heavy water production to India. However, the sole exception to this clause relates to materials aimed for a multilaterally plant to be located in India (Left Parties, 2007:22). At the moment there is, however, no such plant under consideration. To these critics, the UPA claimed that the transfers of fuel and reactors were stated in Article Two, Section Two, and Article Five, Sections One and Three of the 123 Agreement (Left Parties, 2007:39).

In contrast to what the left-wing parties alleged, the UPA contended that the right for reprocessing was secured, as manifested in Article Six(iii). According to the UPA, Article Five, Section Two does enable India to receive and utilize dual use items (Left Parties, 2007:39). Nonetheless, Bergner’s answer to Lantos contradicts what was stated by the UPA in its rebuttal to the left-wing parties’ questions. The Assistant Secretary expressed that regardless of the stated provisions for the transfer of dual use items, the 123 Agreement in its character as a “framework agreement does not compel any such transfers, and as a matter of policy the United

States does not transfer dual use items for use in sensitive nuclear facilities” (US Department of State, 2007:3). Full civil nuclear cooperation also comprises but it is not limited to the “development of a strategic reserve of nuclear fuel to guard against any disruption of supply over the lifetime of India’s reactors,” and “supply between the parties of nuclear material” (US Department of State, 2007, art. 2.2), i.e. either source material, or special fissionable material.<sup>5</sup> These U.S. commitments, which are reaffirmed in Article Five, Section Six, are analyzed in detail in the following section.

#### *Nuclear trade and nuclear related transfers*

Articles Four and Five of the 123 Agreement establish the basis for regulating nuclear trade between the parties, as well as transfers of nuclear material, non-nuclear material, equipment, components and related technology. As stated in the treaty, the signatories are committed to facilitate nuclear trade between them, “and where appropriate trade between third countries and either party of items obligated to the other party” (US Department of State, 2007, art. 5.1). To put it differently, other countries could assume the duties of any of the signatories when it is deemed appropriate, i.e. building upon the theoretical framework of Haas, when the obliged party is not capable to comply.

The U.S. - India 123 Agreement does not impose restrictions on signatories to engage in nuclear trade with third countries. Nevertheless, the treaty does not contemplate specific provisions for evaluating compliance regarding trade of items to which the parties are obligated to supply. With reference to the items and the obligations, there is no further elaboration of what each of the terms means, thus increasing the vagueness and the probability of non-compliance. Furthermore, Article Four, Section One stipulates that the signatories recognize the utmost importance of the reliability of supplies in order to ensure smooth, uninterrupted, and efficient operation of nuclear plants. However, no explicit references were made to provide for monitoring and verification measures to assessing the parties’ compliance with the trade obligations.

According to Haas (2000), exact verification of state compliance may directly influence state choices to comply. Verification may also indirectly deter

---

<sup>5</sup> Source material means: uranium, uranium depleted in the isotope 235 and thorium. Special fissionable material means plutonium, uranium-233 and uranium enriched in the isotope 233 or 235.

non-compliance by increasing the likelihood of detection. Nonetheless, to seriously influence compliance, verification data must be accurate, timely and reliable (Haas, 2000:55-56). A salient potential source of variation in compliance is related to the nature of the issue under regulation and whose activities a state is seeking to influence. This is particularly relevant because interests and policy networks vary accordingly, as does the ability of those who will ultimately have to change their behavior and will pay for the costs of enforcement (Haas, 2000:47).

It is not clear, - at least not theoretically, - which classes of issues will have a greater probability of compliance than others. Haas states that the dynamics of state choice should be completely different by issue-area, as is usually the case with the constellation of policy networks and actors. For instance, the political costs of states enforcing compliance on the private sector and individuals are much higher than on parastatals (Haas, 2000:47). Therefore, the political costs of the U.S. enforcing compliance on U.S. - based private companies whose capital is in some cases not even entirely American (e.g. Westinghouse, General Electric), could, in principle, be higher than in the case of other nuclear suppliers. In contrast, Russia or France would be in a better position for enforcing compliance on the activities of their parastatals (Rosatom and Areva, respectively). Drawing on Haas' theoretical framework, compliance in these cases would be a matter of self-regulation (see table 1).

Within the area of trade, compliance levels would vary relative to the nature of the products regulated. According to Haas, compliance would be lower for dual use technologies and technologies with potential military applications (Haas, 2000:52). Article Five, Section Two of the U.S - India agreement contains provisions for, among others, the transfer of sensitive nuclear technology and heavy water production technology provided the treaty is amended. As an outcome, such transfers, are neither allowed nor envisaged. Concerning dual-use items that could be employed in enrichment, reprocessing, or heavy-water production-facilities, the treaty is more than explicit: Transfers "will be subjected to the parties' respective applicable laws, regulations and license policies" (US Department of State, 2007, art. 5.2). For that reason, as stipulated in the Hyde Act, exports, re-exports, transfers and retransfers could be approved only if the end user is either a

multinational nuclear plant participating in an IAEA-approved program, or a nuclear plant associated with a bilateral or multilateral program developing a proliferation-resistant fuel cycle.

In addition, transfers and exports would be approved only if pertinent measures are in place in the facilities in question to ensure that no sensitive nuclear technology would be diverted to any location, site, or program not subject to IAEA safeguards. Furthermore, the president of the U.S. would need to determine that such transfers/exports would not contribute to nuclear proliferation, hence allowing him to interpret the clause subjectively (U.S. Congress 2006, sec. 104 (A) (B):8-9). Finally, exports and transfers of nuclear and nuclear-related technology to India would be contingent not only on U.S. domestic laws, but also on NSG guidelines (sec. 104 (2):7).

The United Progressive Alliance argues that transfers of dual-use items are not banned in the 123 Agreement, however, that is misleading, because - as stated in the text - they depend on U.S. national laws. One of them is the Hyde Act, which clearly forbids the transfer of such items. The left-wing parties confirm this assessment and claim that sections 103 (a) (Five) and 104 (d) (Four) (A) & (B) of the Hyde Act do not authorize such transfers (Left Parties, 2008:40, 57). As if this were not enough, the restriction is reiterated by Bergner in the letter to Lantos, who adds that the U.S. Administration does not aim at negotiating an amendment to the agreement to transfer sensitive nuclear facilities or components of such facilities to India. Bergner also clarifies that it is not the intention of Bush Administration to transfer, or allow the transfer of sensitive nuclear technology to India outside of the 123 Agreement. Furthermore, he responds that even if India were to build any nuclear facilities participant in bilateral or multinational programs, dual-use transfers could only be considered under the exceptions granted in the Hyde Act. In this way, he rejects the transfer of such technology to any of the current Indian nuclear plants, regardless of whether they are civilian or military, subject to IAEA safeguards, or not, while recognizing the pre-eminence of the Hyde Act over the 123 Agreement (U.S. Department of State, 2007, ).

Article Five, Section Four stipulates that the quantity of nuclear material to be transferred to India has to be consistent with any of the following objectives: “use in reactor experiments or the loading of reactors; the efficient



and continuous conduct of such experiments or operation of reactors for their lifetime, and the accomplishment of other purposes agreed by the parties.” However, Bergner acknowledges that the agreement does not define reasonable operating requirements for the Indian reactors. On top of that, he recognizes that both the Indian and the U.S. governments did not discuss a definition (US Department of State, 2007).

*Supply of nuclear fuel and disruptions of supply*

Article Five, Section Six which establishes the U.S. commitment to supply nuclear fuel to India on a reliable basis, lacks enforcement, monitoring, and verification measures that assure compliance. It is also neither consistent with political statements, nor with the Vienna Convention on the Law of the Treaties. In addition, it assigns responsibilities either on those who have not signed the treaty, or exclusively on one of the parties, thus displaying a lack of reciprocity and commitment.

Haas argues that even if a state considers that signing a treaty is in its best interest, the political calculations associated with the decision on whether to comply are distinct and divergent. Despite a state’s willingness to comply, not all states are capable. Technical and political factors affect the choice to comply. States, for example, may be deprived of the technical capacity to fulfill obligations due to their lack of competence in developing and enforcing technical regulations in accordance with international commitments. If they do not perceive any possibilities for political retribution for failing to comply with specific commitments, states “may well commit to obligations which they know they cannot meet...” (Haas, 2000:45-46). That is the case, I argue, with the provisions contained in Article Five Section Six, particularly with those referring to the supply of nuclear fuel to India in case of disruption of fuel supplies (iv).

Although the U.S. Administration committed resources by amending its domestic laws i.e. the Hyde Act,<sup>6</sup> and offered to contribute to adjusting the practices of the Nuclear Suppliers Group to create the necessary conditions for India to obtain full access to the international fuel market, compliance with the supply commitments is not guaranteed for several reasons. First,

---

<sup>6</sup> According to Haas, the amendment of domestic laws is an institutional factor that may influence state compliance.

the amendments to the U.S. domestic law did waive some of the restrictions on nuclear trade with India, but there was not relaxation of the rules for dual-use items and technologies, or reprocessing rights. The latter aspect is regarded as fundamental for the development of India's nuclear program. Second, the Hyde Act imposed new obligations and regulations on both the U.S. administration and India, restricting, for example, the supply of nuclear fuel to certain facilities, while linking the 123 Agreement provisions to issues outside the scope of the treaty (e.g. the containment of Iran). Third, the commitment to supply nuclear fuel to India is either contingent on technical or political factors, or is simply not granted.

The 123 Agreement is not the only document characterized by its vagueness. It is also the case in the NSG waiver granted to India in September 2008 at Vienna. It lacks, for example, important definitions, such as the definition of "corrective measures" that India ought to take in consonance with the 123 Agreement Article Five, Section Six (c) in the event of a disruption of foreign fuel supplies. Furthermore, the waiver is unilateral as set forth in the provisions embodied in the preamble of the IISA, where the IAEA confers India with the sole responsibility to "take corrective measures to ensure uninterrupted operation of its civilian nuclear reactors (IAEA Board of Governors, 2008)." This highly detrimental provision applies even in cases where India is not at fault (e.g. failure of foreign companies to supply India nuclear fuel).

Moreover, nuclear trade could terminate if India decides to conduct a new nuclear test. This was clearly stated in the letter to Lantos, and expressed by officials from the US and other NSG members during the meetings at Vienna, where India was granted the waiver (Baruah, 'Life after NSG', 2008; Foster, 2008; Hibbs, 2008). In this respect, Bergner is unambiguous: "The fuel supply assurances are not, however, meant to insulate India against the consequences of a nuclear explosive test". Basing his answer on the provisions contained in Article Fourteen of the 123 agreement, Bergner clarifies that if India decides to test, the U.S. has the right to immediately cease all nuclear cooperation with it, including the supply of fuel (US Department of State, 2007, ). This assertion was also reiterated by Nicholas Burns who claimed that in the event of an Indian atomic explosion, the U.S. has the right, according to the U.S. law, to demand the return of all nuclear fuel and technology exported to India (Burns, 2007:137).

Irrespective of whether India conducts another nuclear test, Prime Minister Kevin Rudd from Australia - one of the major producers of uranium worldwide - has already decided to reverse his liberal predecessor's decision to sell uranium to India until it signs the NPT, thus maintaining its long-held policy banning the export of uranium to non NPT signatories ('Australia not to sell uranium to India till it signs NPT,' 2008).

Prior to the ratification of the 123 Agreement, President Bush declared before the U.S. Congress that the fuel supply assurances given to India were "not legally binding" ("Bush says N-supply not legally binding; India worried," 2008). To clarify this issue, Congressman Lantos asked Bergner whether the commitments made by the U.S. in Article Five were legally binding. Bergner answered that the U.S. intends to uphold fuel supply commitments stipulated in Section Six of that article, while recognizing that they are unspecified fuel supply assurances. Bergner nevertheless, did not answer as to whether India agrees on the commitments deemed as legally binding, hence allowing once again for contrasting interpretations (US Department of State, 2007). As a consequence, regardless of the changes enacted in U.S. domestic legislation and the U.S. efforts to convince NSG members to waive some restrictions on India, the supply of fuel from countries such as the U.S. is either dependent on technical and political factors, or is even not assured, as demonstrated in the case of Australia ('Uranium to India,' 2008).

Notwithstanding the US's good intentions to help India, compliance is often hindered due to legal, political and technical reasons. Among other things, the U.S. offered to assist India in three ways: by negotiating an India-specific fuel supply agreement with the IAEA, by supporting it for developing a strategic reserve of nuclear fuel to protect against disruption of supply over the lifetime of India's reactors, and by convoking a group of "friendly supplier countries" to work towards recovering fuel supply to India. However, as we will see, the assurances given to India were insufficient or vague.

According to the International Energy Agency (IEA), emergency stocks and coordinated responses to a supply disruption form a central pillar of the energy policies of IEA countries. As part of the response mechanisms to deal with disruptions of, for example, the oil supply, the 1974 Agreement on the International Energy Program required countries to hold stocks of

at least ninety days' worth of net oil imports, release stocks, restrain demand, switch to other fuels or increase domestic production in a coordinated manner (International Energy Agency [IEA], 2007:162). With due consideration of the different nature of disruptions of oil and nuclear fuel supply, it is nonetheless indicative, that the 123 Agreement does not stipulate either response mechanisms or minimum-maximum levels regarding the "strategic reserve of nuclear fuel" the U.S. "will support to develop".

This is confirmed in the letter addressed to Lantos, where Bergner recognized that no assessments were made concerning the amount of nuclear fuel that would be required for a life-time strategic reserve for each safeguarded reactor (US Department of State, 2007; Kessler, 2008). In addition, according to Bergner's response, the agreement did not establish either a minimum or a maximum quantity of nuclear material to be placed in India's reserve. He added that the parameters of the proposed strategic reserve, and of India's capacity to purchase nuclear fuel for its reactors, will be developed over time. The U.S. would only help India in dealing with disruptions in its supply if they occurred as result of no fault of its own, such as a trade war or market disruptions, but would certainly not help India in the event of nuclear testing (US Department of State, 2007).

Concerning the second U.S. commitment, i.e. to convene a "group of friendly countries" to help restore supply to India (Article Five, Section Six iv), Article Thirty-four, Section Four of the Vienna Convention of the Law of the Treaties stipulates that "a treaty does not create either obligations or rights for a third state without its consent" (United Nations, 1969, sec. 4, art. 34:13). That is evidently the case for the bilateral agreement signed between the Indian and the U.S. governments. Needless to say, the 123 Agreement is an agreement which neither Russia, nor France nor the United Kingdom have signed. Nonetheless, these countries were expressly assigned that responsibility in the wording of the aforementioned article.

According to Haas, there are a myriad of self-interested motives, independent of any expectation of future compliance, why states may adopt norms in soft law instruments. States may either concede that they are unable to comply but decide to commit anyway, while expecting others to help them to comply. States may also signal their commitment in related areas of national importance.

I argue that is the case with the 123 Agreement, as set forth in Article Five, Section Six iv. Specifically, I claim the U.S. might have decided to bring India into the non-proliferation regime for two reasons: to strengthen George Bush's political potential for domestic implementation or because agreement is part of a broader diplomatic culture with which leaders from the state wish to be related. The former was evidenced in Bush's statements regarding his intention not to supply nuclear fuel to India if it decides to conduct nuclear tests, whereas in the latter, the U.S. administration sought to project an image that conveys that both countries share an attachment to democratic values (Haas, 2000:46).

Finally, with respect to the IAEA India-specific fuel supply agreement, no such agreement is under negotiation nor was it considered in the wording of the India-IAEA safeguards agreement (IISA). In the IISA preamble, it was acknowledged that "an essential basis for India's willingness to accept agency safeguards is the conclusion of international cooperation agreements to obtain access to fuel supplies from companies in several nations, as well as, support for an Indian effort to develop a strategic reserve to guard any disruption of supply..." (International Atomic Energy Agency [IAEA] Board of Governors, 2008, preamble). Thus far, there has been, however, no IAEA commitment to procure, supervise and enforce the reliable, uninterrupted and continuous supply of nuclear fuel from any of its members.

Parthasarathi (2008) claimed that the US - India civil nuclear agreement does not commit the US to guarantee fuel supply over the lifetime of even nuclear reactors of US-origin purchased by India. He asserted that despite the full nuclear cooperation assurances contained in the joint statement of July 18, 2005, the responsibility to supply fuel is not assigned to the U.S., but to the IAEA, which has no access to or control over sources of supply of fuel. In the majority of the countries including the US, nuclear energy is produced by private companies, which are not directly regulated by international law or international organizations. International law applies to states but never to private entities. Consequently, it is the state that exclusively holds legal power over private companies. Kellman argues that even assuming that states were willing to accept binding IAEA authority over their nuclear activities, the IAEA would not be able to demand private companies to implement specific tasks concerning nuclear materials (Kellman, 2000:495).

France, whose main producer of nuclear energy - Areva - is to a large extent state-owned, constitutes the only exception within the IAEA who granted India limited long-term nuclear fuel supply assurances. In September 18, 2008, promptly after India was granted the NSG waiver, Ambassador Jeremy Bonafonte offered India fuel supplies for the full life (approximately 40-50 years) of its nuclear reactors. However, this assurance applies only if India buys nuclear reactors from France. Additionally, no supply assurances were given for existent Indian nuclear reactors, nor was New Delhi granted permission to acquire enrichment and reprocessing technologies from Paris ("Buy French reactor & get lifetime fuel," 2008).

Haas (2000) argues that issues in which many actors are responsible for the targeted activities – such as nuclear materials - may induce selective compliance contingent on associated political costs for the state (Haas, 2000:49). That is the case, I argue, for the India - US 123 Agreement, in which various actors are either responsible for supplying nuclear material to India (American and foreign companies), or for regulating the action (U.S. Government, IAEA, NSG). Hence, apart from eliciting selective compliance, the commitment to comply and the delimitation of responsibilities, as evidenced in the 123 Agreement and the IISA, become diffuse.

Table 1, derived from Haas theoretical framework, shows the interconnections, areas of responsibility, as well as the multiple dimensions –private/public, domestic/international– that arise between different actors regarding an issue which has dual-use applications, i.e. nuclear materials

Haas argues that states would extract compliance more easily from state actors than private actors. Therefore, it would be reasonable to expect the Indian government to award more nuclear contracts to French and Russian state-owned companies, as it could assume higher levels of compliance from those governments. Furthermore, there would be political and technical factors that may influence India's decision, such as the long-standing history of nuclear collaboration and trust between both countries and India. Concerning the technical factors, India's decision is informed, according to some, by: a successful model of preference for dealing with just one vendor; France's leading expertise (Verma, 2007:3291), and the less stringent regulations from Russia and France (Horner, 2008:4; Kaul, 2008; Lakshmi, 2008).

**Table 1.** Types of cases by source of activity and source of regulation

Source of Regulation	Source of Activity	
	State & state owned companies Areva, Rosatom, etc.	Private companies GE, Westinghouse, Toshiba, Hitachi, Siemens, etc.
<b>International Organization</b> IAEA	Nuclear materials*	Nuclear materials
<b>Supplier group</b> Nuclear Suppliers Group (NSG)	Nuclear materials	Nuclear materials
<b>State</b> USA, France, Russia, U.K., etc.	Nuclear materials	Nuclear materials
<b>Individuals/ NGOs</b> ACA, Pelindaba W.G., etc.	Non-proliferation	Non-proliferation

\* As defined in the India-U.S. 123 Agreement: uranium, plutonium, thorium, etc.

**Source:** Haas (2000); Examples provided by the author.

### *IAEA Safeguards*

Article Ten of the 123 Agreement obliged India to maintain safeguards according to IAEA regulations with respect to nuclear materials and equipment. The regulation applies to both the materials and equipment imported by India and those produced in the facilities designated by New Delhi as civilian, including all envisaged nuclear reactors (U.S. Department of State, 2007, art. 10.1.).

The safeguards consist of an ample set of technical measures by which the IAEA Secretariat independently corroborates the “correctness and the completeness of the declarations made by states about their nuclear material and activities.” Safeguard measures (SM) can be divided into three categories, i.e. “traditional measures”, “strengthening measures” and “integrated safeguards.” Traditional measures refer to nuclear material verification activities conducted at facilities or locations subject to safeguards. “Strengthening measures” include measures to be implemented in accordance with safeguard agreements and additional protocols. The aim of the “strengthening measures” is to enable the IAEA to draw conclusions about the non-diversion of nuclear material and the absence of undeclared nucle-

ar material and unspecified nuclear activities in the state in question. Finally, “integrated measures” relate to the optimum combination of all IAEA SM allowing a state to obtain the highest degree of effectiveness and efficiency within the resources at its disposal (IAEA, 2008).

As specified by the IISA, India agreed to subject to SM fourteen civilian nuclear facilities,<sup>7</sup> as well as the nuclear and non-nuclear material, equipment and components produced, used, or processed in or by such facilities. IAEA Safeguards agreements are not treaties, nevertheless Kellman argues they are considered as binding (IAEA Board of Governors 2008:4, sec. II, A, par. 11).

Article Ten, Section Two of the 123 Agreement perspicuously stipulates that the safeguarded facilities, as well as the materials and components transferred by the U.S. to those facilities, have to be subject to SM in perpetuity. However, as stated in the previous section, neither the 123 Agreement nor the IISA- in acute contrast to Prime Minister Singh’s assurances - provided for supply of nuclear fuel in perpetuity. Both agreements committed India to establishing a system of accounting and control measures applicable to all nuclear materials subject to safeguards (IAEA Board of Governors, 2008:19, sec. VI; U.S. Department of State, 2007, art. 6), thus increasing the probability of India’s compliance.

Regrettably for India’s— and, paraphrasing Burns (2007:137), for the world’s— energy security, similar measures to verify compliance of U.S. energy security-related commitments were not stipulated in any of the agreements. As expected, the IISA includes a section to address non-compliances granting the IAEA the right to determine if there has been any non-compliance by India, and when appropriate to take “any measures provided for in Article Twelve, Section C of the Statute.” However, this is not the case with the 123 Agreement. It does not contain any formulations to either determine or sanction U.S. non-compliance (IAEA Board of Governors, 2008:20, sec. VIII, par. 103), thus reflecting once more, the unequal nature of the responsibilities contained in the agreement.

Haas (2000) argues that direct verification of state compliance may directly impact state choices to comply. Verification too may indirectly deter non-compliance by increasing the likelihood of detection. To really influence compliance, verification data must be accurate, timely and reliable. Neverthe-

7 India decided nonetheless to exclude eight nuclear facilities, which it chose to designate as military.



less, verification may not be equally feasible in all cases. For instance, remote sensing satisfactorily works with environmental and arms-control-related issues, but it works less satisfactorily with trade and human rights (Haas, 2000:55-56). Hence, contingent on their respective activities and obligations undertaken,<sup>8</sup> and taking into account institutional factors, e.g. the fact that the AIEA is only supervising the responsibilities assigned to one of the parties, India, it would be conceivable to expect a higher degree of compliance from New Delhi than from Washington.

Despite having been granted the right to trade with NSG members, India will still need to comply with stringent controls and regulations to import, use, and dispose of nuclear materials with dual applications. In the case of the US, controls and regulations will certainly apply to transportation of nuclear materials, but not to the verification of the continuous, reliable, and affordable supply of NF to Indian safeguarded facilities. Furthermore, the US decision to supply India could be affected by the vagaries of the international market (e.g. trade wars, disruptions in the global supply of fuel), or by technical (e.g. failure of an American company to fulfill a supply contract) or political factors (e.g. resistance from domestic and international nonproliferation groups). Nonetheless, due to the high costs, estimated at €1.2 million per plant on a yearly basis (IAEA Board of Governors, 2008:2 par. 8), for implementing SM to new facilities, compliance in the case of India could be costly but not necessarily unlikely (see table 2). The South Asian state may try to comply anyway, and expect to fail while aiming to attract resources from international organizations to bolster capacity (Haas, 2000:47).

Haas argues that institutions play an important role in encouraging compliance and deterring noncompliance through the elimination of barriers to self-interested compliance. What is more, linkages between institutions involved in an issue-area may contribute to compliance. As exposed in the case analyzed here, dense networks of institutional factors, including the number of international institutions involved in negotiations (IAEA, NSG, NGO's, etc.), and the frequency of interactions could contribute to stronger levels of Indian but not necessarily U.S. compliance (Haas, 2000:53, 57). This is

---

8 U.S.: Supply of nuclear fuel; India: Non diversion of nuclear materials.

so, because the American supply commitments are not supervised or regulated by any of those organizations, and are subject to political choices (e.g. to terminate nuclear trade with India if it conducts another nuclear test). Consequently, US noncompliance risks not only the energy security of India, but also world security in the event India decides to unilaterally suspend safeguards in response to a lack of foreign nuclear fuel, as declared in 2008 by the UPA government (Left Parties, 2008:73).

**Table 2.** Likelihood of state compliance

	costly compliance	compliance not costly
state is capable and willing	possible	most likely
state is capable but unwilling	unlikely	unlikely
state is incapable and willing	state may try to comply but expect to fail to attract resources from international institutions to improve capacity	state may try to comply
state is incapable and unwilling	highly unlikely	unlikely

**Source:** Source: Haas, 2000.

### The implementation of the agreement

Even though the 123 Agreement stipulates that “it shall be implemented in a way not to hamper, delay or interfere in the nuclear activities of the signatories,” it has the potential to seriously restrict what it is aiming to avoid. The agreement purports *inter alia* to be consistent with prudent management practices for the safe conduct of nuclear activities; to fully consider the long-term requirements of the parties’ nuclear programs and intends not to restrict trade or to hinder the commercial or industrial interests of the signatories (U.S. Department of State, 2007, art. 12.1). However, nuclear fuel is neither guaranteed by the U.S. nor by the group of “friendly suppliers.” Consequently, safeguard measures could be unilaterally suspended by India at any time, thus risking the safe conduct of nuclear activities and prompting the termination of the agreement (U.S. Department of State, 2007:20). Moreover, no concrete steps have been taken

to plan the construction of a nuclear fuel reserve, therefore, India's long term needs were not taken into consideration (Kimball 2007:4; U.S. Department of State, 2007:11). Finally, the preeminence of the Hyde Act over the 123 Agreement may serve as a pretext for imposing economic sanctions (U.S. Congress 2006, sec. 103 (b) (E) (4); Verma, 2007:3288) on India in case it decides to conduct business with Iran (e.g. by participating in the construction of the IIPP).

### **Consultations and the settlement of disputes.**

*Do parties have the same responsibilities, benefits and advantages?*

Article Thirteen of the 123 Agreement, which relates to consultations between "two states with advanced nuclear technology" who "have agreed to assume the same responsibilities and practices and acquire the same benefits and advantages as other leading countries with advanced nuclear technology," does not provide any possibility for arbitration or impose sanctions to address non-compliances. It merely specifies that the parties may engage in consultations at the request of the other party in cases when any of those parties do not comply with the provisions of the agreement (U.S. Department of State, 2007, art. 13.1 & 13.2). The responsibilities of the parties, as presented in the previous pages are not the same, and the benefits as a result, are not granted. In other words, while India agreed to some commitments that are legally binding and permanent (e.g. to subject all present and future civilian facilities to safeguards), the US' obligations are either vague (e.g. supply of NF), subject to amendment (e.g. regarding sensitive nuclear technology), contingent on its domestic laws (dual-use items), or finite (Left Parties, 2008:11).

Monitoring by impartial third parties is considered by Haas (2000) to be an important institutional factor affecting compliance. When states or any other principal actors are responsible for monitoring the results of their own actions they encounter innumerable incentives for misrepresentation (Haas, 2000:54). Since the IAEA was not conferred the responsibility to arbitrate between the parties, and was restricted to determining when India has incurred non-compliances, U.S. compliance appears less likely.

In this regard, the UPA claims that not having international arbitration is not a hindrance. The UPA legislators claimed the 123 Agreement' negotiations gave India a wider margin of freedom and flexibility than the

one provided by international arbitration which they deem as contrary to India's national interest. The coalition led by Sonia Gandhi also considered the India-US 123 Agreement far superior to the US-Japan 123 Agreement because the consultation process of the former may last up to one year (Left Parties 2008:33, 71). Nevertheless, nowhere in the wording of Article Thirteen is it stated that the parties can call for consultations lasting one year. Furthermore, if the European Union and Japan (Haas, 2000:51) were granted the right for international arbitration, why not India, if supposedly- as the wording of the 123 Agreement implies- it is also considered a country possessing advanced nuclear technology?

Article Fifteen of the India-US Agreement, which symbolically refers to the settlement of disputes, simply states that any dispute concerning the interpretation or implementation of the agreement's provisions must be solved via negotiations. Thus, it circumscribes the options and subjects the final decision to a great array of domestic and international political factors, as well as to the self-interests of their respective domestic constituencies (U.S. Department of State, 2007, art. 15). Haas (2000) argues that domestic and state-based approaches seeking to explain state compliance with international soft law instruments are insufficient because domestic factors "do not operate in a vacuum." He ascribes importance to systemic and transnational factors, which have "a strong influence on the origin of many domestic factors and the political context in which they operate (Haas, 2000:43)." Moreover, the choice to comply is rarely based on purely domestic considerations. The choices a state makes are strategic and dependent "on expectations of others' independent behavior." In this sense, "domestic groups may anticipate international effects of compliance and international factors amplify some domestic forces while suppressing others" (Haas, 2000:49).

State compliance with liberal free-trade rules- including the recently liberalized sale of nuclear material and technology to India- could be encouraged by influential companies such as General Electric or Westinghouse, which would rely on the Indian market to reactivate their sales. Indeed, the influence of these companies could increase by including other actors- domestic and trans-

national- in their cause,<sup>9</sup> as evidenced during the ratification process of the 123 Agreement. Back then, American defense companies, which were fully aware of the importance of the civil nuclear agreement within the general interests of the strategic partnership, and recognized the linkages between different issue-areas decided to lobby along with the nuclear-generating companies.

However, in the event of an Indian atomic test, the interests of the American companies would probably be met with the stark opposition from influential members of the Congress- particularly the Democrats- the general public, and important non-proliferation organizations like the ACA. In consequence, the US decision to continue supplying fuel to India would be adversely affected (Ghoshroy, 2006). Haas (2000) describes this institutional factor as national concern (Haas, 2000:58). By the same token, it would be logical to expect other NSG members and non-proliferation groups to exert pressure, particularly from Austria, Ireland, Switzerland, New Zealand, and China, who expressed serious concerns, from the very beginning, about waiving restrictions on trading with India.

#### *The duration and termination of cooperation*

As set forth in Article Sixteen, the agreement is required to remain in force for a period of forty years. It nevertheless provides for supplementary periods of ten years. As part of the provisions, the parties are allowed to terminate the agreement at the end of any of the periods of time mentioned by notifying the other party in written form six months ahead of time (U.S. Department of State, 2007, art. 16).

As per Article Fourteen, if consultations fail, the parties have the right to cease further cooperation. Moreover, they agree to “consider carefully the circumstances that may lead to termination or cessation,” and to evaluate whether those circumstances are the consequence of a party’s major concern about a “changed security environment, or as a response to similar actions by other states, which

---

<sup>9</sup> the main American firms and confederations behind the deal have been: Westinghouse (acquired in 2006 by Toshiba Corp), General Electric (since 2007 world partner of Hitachi), and the U.S. Chamber of Commerce, which are looking at \$100-150 billion in new business opportunities over the next 15-20 years and have promised to create around 250 000 high-tech jobs in the U.S. Whereas in the case of India, the Indian Confederation of Industry is expected to attract \$27 billion in investment to build around 18-20 new nuclear power plants over the next 15 years. Main supporters in the subcontinent include BHEL, NTPC, Tata Power, Larsen and Toubro.

could impact [its] national security” (U.S. Department of State 2007, art. 14.2). The wording of the article would seem to accommodate India’s specific security concerns; however, the explanation Bergner gave to Lantos concerning those circumstances reveals the US intention not to comply.

In the letter addressed to Congressman Lantos, Bergner specified what the circumstances may be, despite the fact these circumstances are not spelled out in the 123 agreement itself. Such circumstances would include, but are not limited to: the detonation of a nuclear weapon, a material violation of the 123 Agreement or the termination, abrogation or material violation of IAEA safeguards. In such circumstances he declared, the provisions of Article Fourteen could be invoked and their exercise would render Article Five, Section Six inapplicable. This would flagrantly contradict Article Sixteen, Section Three, which specifically requires that Article Five, Section Six (c) related to the implementation of SM continue even in the absence of nuclear fuel supply.

In other words, the US would not honor its commitments to supply NF to India and guard against any disruption of fuel supplies. This implies that the US, for example, would not convoke a group of “friendly countries” with India to restore supply to New Delhi, nor support an Indian effort to develop a strategic reserve (U.S. Department of State, 2007, :9). Bergner unambiguously stated that Article Fourteen of the 123 Agreement enables the US to terminate nuclear cooperation and demand the return of all equipment and materials subject to the agreement. Furthermore, he claimed that to take those actions “...would be within the discretion of the US” (US Department of State, 2007:20), therefore his declarations contradict the aim of Article Fourteen, Section Eight, i.e. not to derogate the rights of the parties related to ES commitments under Article Five, Section Six. (U.S. Department of State, 2007, art. 14.8).

The assistant secretary of state justified the action by linking the 123 Agreement provisions to section 123 of the Atomic Energy Act, A number Four, where it is stipulated that the U.S. can exercise such a right if “the cooperating party detonates a nuclear explosive device or terminates or abrogates and agreement providing for IAEA safeguards” (Office of the General Counsel U.S. Nuclear Regulatory Commission, 2002, sec. 123 (a) (4), pp.1-52, vol. 1, no. 6). Again, this shows how US domestic laws override the 123 agreement. This provision however, does not apply to nuclear weapon states.

Consequently, we could assume- contrary to the Indian mainstream opinion- that the US is not at all recognizing India as such, nor conferring it the same benefits and advantages granted to “other leading countries with advanced nuclear technology” (US Department of State, 2007, art. 13.1).

The 123 Agreement prescribes that “a crucial factor for seeking termination will be whether the IAEA Board of Governors has made a finding of non-compliance” (US Department of State, 2007, art. 14.3), a clause seemingly designed to sanction India but not the US. This would apply unless India, hypothetically decided to terminate cooperation with the US on the basis of US noncompliance determined by the IAEA but circumscribed to the correct application of SM to US civilian nuclear facilities. That is, of course, absent in the wording of the 123 agreement.

Finally, a US decision to terminate nuclear trade with India could be linked to “an ethical or moral sense of obligation or a causal belief in how the world works and how a country’s interests will be affected by compliance.” In the case under consideration, the US could stop trading with India to impede nuclear proliferation due to the violation of safeguard measures. For Haas (2000), the collective understandings in the form of moral norms would also lead to the choice on whether to comply (Haas, 2000:62).

## **Conclusions**

The India-US 123 Agreement, in contrast to what was declared by many authorities and scholars from India and the United States, does not end thirty-four years of “nuclear isolation” for India. Moreover, it does not enable India to achieve energy security on a stable, reliable and predictable basis. The 123 Agreement is an unequal, vague and non-binding treaty that does not accomplish its aim, namely to enable full civil nuclear cooperation between the parties. An analysis of the relevant documents and statements revealed that the commitments subscribed to by the US are either regarded by the authorities of that country as non-binding, or are viewed in such a way as to be contradictory to what was stated in the text. Finally, international institutional and ideational factors in combination with domestic politics and structures may affect the US decision to comply with the energy security assurances of the 123 Agreement.

It is a fallacy to argue that nuclear energy will enable a country with the characteristics and needs of India to achieve energy security. The meager 5 percent of participation expected by 2030 will not enable India to substantially diversify its energy resources or its energy mix. As a matter of fact, the diversification of India's energy mix through nuclear energy may even impede progress in important energy projects such as the Iran- Pakistan- India pipeline. In the 2005 joint statement, President Bush and Prime Minister Singh committed to developing and deploying more efficient, affordable and diversified energy technologies. However, as evidenced by the analysis of the strategic partnership, and especially the 123 agreement, energy cooperation was restricted to nuclear energy, which is clearly insufficient and not appropriate for achieving India's energy security. The UPA itself recognized that the process to develop the nuclear industry and to produce nuclear energy would be a lengthy and a very expensive one.

Energy security cannot be reduced to security of supply nor circumscribed to one kind of energy as presented in the India- US 123 agreement. It is important to develop all forms of energy, particularly renewable energy. In the case of India, wind energy has a promising future. Additionally, it is necessary to consider other aspects such as the diversification of imports, sustainability, energy efficiency, etc. to face the challenge India's rapid growth presents.

The policy makers behind the India-U.S. 123 agreement failed to consider effective energy security tools to prevent, deter, contain or manage an energy threat. In this respect, the US commitments to supply or prevent nuclear fuel disruptions are non-binding and contingent on numerous political, legal, and technical factors. As a consequence, the supply of fuel is not guaranteed. In this respect, the provisions of the agreement contradict what was found in documents and public statements.

Drawing on Haas's compliance theories, it is likely that the US may decide not to comply with the energy security commitments made to India. Depending on the factor, the US is either not capable or unwilling to comply. Due to institutional factors such as regulation from international organizations (IAEA, NSG), it is more likely to expect compliance from India than from the US. In this sense, India is more subject to regulations than its counterpart. In addition, there is no reciprocity concerning rights and responsibilities. Contrary to what



was established in its preamble, the treaty is clearly not between equals. Concerning international arbitration, the US for example, did not confer the same status and rights to India that it granted to Japan and to the European Union. The responsibilities of the parties are not the same, and consequently the benefits are not reciprocal. While India made some commitments that are legally binding and permanent (e.g. the commitment to subject all its present and future civilian facilities to safeguards), the US' obligations are either vague (e.g. the supply of nuclear fuel), subject to amendment (e.g. in the case of sensitive nuclear technology), contingent on its domestic laws (e.g. dual-use items) or finite. For that reason, nuclear cooperation between the parties is not comprehensive.

The US may have the capability and legitimacy to develop and enforce technical regulations, adjust its laws, collect taxes, and allocate resources to try to change the behavior of the domestic constituencies affected (e.g. to persuade non-proliferation advocacy groups and citizens). However, as displayed in the commitments regarding energy security (e.g. Article Five), the US may not necessarily have the will to comply. Its will to comply could be affected by important domestic actors concerned with the application of the Hyde Act, as evidenced during the ratification process. What is more, national concern could substantially increase if India for example violates IAEA safeguard measures.

There is also the possibility that the US may be incapable of supplying nuclear fuel, but still decide to try to comply while expecting others to assist it. For example, the American government may have difficulties in enforcing compliance on its nuclear companies, or may even need to deal with unexpected market failures, trade wars, etc. In those cases, the Article Five, Section Six (iv) of the 123 Agreement entitles the US to call a group of friendly supplier countries to restore fuel supply to India. Furthermore, it may be the case that the American government envisages no political retributions for failing to comply with its energy-security-related commitments, and may still commit to obligations it knows it cannot meet by itself.

Since no domestic actors in the US would need to change their behavior after the implementation of the 123 Agreement, compliance may nonetheless be at stake if, for example, India decides to conduct another nuclear test. Under that assumption, it would be likely to expect pressures from various American domestic actors demanding their government terminate nuclear

trade to abide by the normative values deemed important within that society. In the event of a test, the nuclear companies themselves would be subject to similar pressure to terminate trade. Needless to say, the pressure could be amplified by international actors.

Additionally, the US decision to comply could be affected by the way the American administration learns to link its energy security commitments with other issues. This could happen if the US follows the Hyde Act provisions and obliges India to support its policy of containing Iran. In this manner, the US would be linking its choice to honor the agreement to compliance with its internal laws, hence affecting Indian energy security. Due to the large number of actors responsible for the activities targeted, i.e. the supply of fuel or regulation of the action, it is reasonable to assume selective compliance from the US. Finally, the choice to comply with the 123 Agreement is legally prescribed by the Hyde Act, which is regarded by authorities of that country as a superior and more influential law.

The question of Indian energy security is indeed a question with global repercussions. However it would be misleading to reduce the challenges India faces to a mere dependence on hydrocarbon fuels, as some scholars would have us believe. There are many other reasons why it is in the world's interest to supply India with nuclear fuel on a stable, reliable and predictable basis. Most notable among them is nuclear proliferation in the event India stops following safeguard measures. Another one has to do with the damage it would inflict on the Indian development path, thus ultimately affecting the world economy at large.

## References

- A Bad India Deal. (2008, September 30). *The New York Times*. Retrieved from: <http://www.nytimes.com/2008/09/30/opinion/30tue2.html>
- Ashley, T. (2006, June), *Atoms for War? U.S.-Indian Civilian Nuclear Cooperation and India's Nuclear Arsenal*. Retrieved from: <http://goo.gl/NvvvMH>
- Australia not to sell uranium to India till it signs NPT. (2008, September 8). *The Economic Times*, Retrieved from: <http://goo.gl/AxLPLN>
- Baruah, A. (2008, August 1). Vienna won, next halt N-club. *Hindustan Times*. Retrieved from: <http://www.hindustantimes.com/storypage/Print>

- Baruah, A. (2008, September 5). Austria stands between India and N-power. *Hindustan Times*. Retrieved from: <http://goo.gl/2oD3WU>
- Baruah, A. (2008, September 7) A word with China just before NSG waiver. *Hindustan Times*. Retrieved from: <http://goo.gl/mkCA0B>
- Baruah, A. (2008, September 8). Life after NSG. *Hindustan Times*. Retrieved from: <http://www.hindustantimes.com/StoryPage/StoryPage>
- Berman, H. (2008, August 5). Letter from Congressman Howard Berman to Secretary of State Condoleezza Rice on the U.S. Indian Nuclear Deal, Letter. Retrieved from: <http://goo.gl/HejUnx>
- Bhanu Mehta, P (2006, March 7). Nuclear pact launches India into uncharted waters. *Yale Global*, Retrieved from: <http://goo.gl/vlzRA5>
- BJP demands resignation of UPA govt on nuclear deal issue. (2008, September 4). *Economic Times*. Retrieved from: <http://goo.gl/i4G5tk>
- BJP rakes up nuclear issue, says deal does not permit tests. (2008, August 1). *Hindustan Times*, Retrieved from: <http://goo.gl/sB4CNL>
- Boeing. (2006, January 11). Boeing, Air India Formally Announce Order Agreement for 68 Jets. *Boeing Website*, Press Release. Retrieved from: <http://www.boeing.com/news/releases/2006/>
- Buffett's constellation deal said to worry nuclear firms. (2008, September 28). *The New York Times*, Retrieved from: <http://goo.gl/lMB4o1>
- Burns, R. N. (2007). America's Strategic Opportunity with India. The New U.S.-India Partnership." *Foreign Affairs* 86(6). Retrieved from: <http://www.foreignaffairs.org/20071101faessay86609/r-nicholas-burns/america-s-strategic-opportunity-with-india.html>
- Bush says N-supply not legally binding; India worried. (2008, September 12). *The Times of India*, Retrieved from: <http://goo.gl/kgbrta>
- Buy French reactor & get lifetime fuel. (2008, September 19). *The Economic Times*, Retrieved from: <http://goo.gl/c7dCKy>
- Chomsky, N., Klein, N., Zinn, H., Benjamin, M., LeBlanc, J., Davis, M., Bellamy Foster, J., & Prashad, V. (2007, September 3). Why we oppose the Indo-U.S. military ties. *The Hindu : Opinion / News Analysis*. Retrieved from: <http://www.thehindu.com/2007/09/03/stories/2007090355521100.htm>
- Correljé, A. & van der Linde, C. (2006). Energy supply security and geopolitics: A European perspective, *Energy Policy* 34(5), 532-543.

- Deal done, now for the deals. (2008, September 9). *Hindustan Times*, Retrieved from: <http://goo.gl/ctRuyA>
- Dikshit , S. (2008, July 19). Three top scientists caution on deal. *The Hindu*, Retrieved from: <http://goo.gl/wqjYW0>
- Dixit, J. N.. *India's foreign policy 1947-2003*. New Delhi: Picus Book.
- Dutt, V.:(2007). *India's foreign policy since independence*. New Delhi: National Book Trust.
- Embassy of India in Washington DC. <http://goo.gl/kqzO9P>
- Energy security or fuel poverty? (2008, August 26). *The Economic Times*, Retrieved from: <http://goo.gl/t6TqjJ>
- Experts express concern over nuclear deal with U.S. (2006, July 3). *The Hindu*, Retrieved from: <http://goo.gl/LKxStF>
- Gahlaut, S (2005, August 31). U.S.-India nuclear deal will strengthen Nonproliferation.. *PacNet. Hawaii: Pacific Forum CSIS*, Retrieved from: <http://www.csis.org/media/csis/pubs/pac0537.pdf>
- Galluci, R. L. (2006, April 26) Testimony of Robert Galluci before the Senate Foreign Relations Committee. Pdf. Retrieved from: <http://foreign.senate.gov/testimony/2006/GullucciTestimony060426.pdf>
- Ganguly, S. & Dinshaw, M. (2006). The Case for the U.S.-India Nuclear Agreement. *World Policy Journal* 23(2), 11-19.
- GE exploring business opportunities in Indian civil N-power. (2008, September 21) *Hindustan Times*, Retrieved from: <http://goo.gl/IkoVil>
- GE, Hitachi Forge Global Alliance In Nuclear Industry” (2007, June 4). General Electric. Website. Retrieved from: <http://goo.gl/isFmYD>
- Ghoshroy, S. (2006). *The U.S.-India nuclear deal: Triumph of the business lobby*. Massachusetts Institute of Technology, Center for International Studies, Retrieved from: [http://web.mit.edu/cis/pdf/Audit\\_09\\_14\\_Ghoshroy.pdf](http://web.mit.edu/cis/pdf/Audit_09_14_Ghoshroy.pdf)
- Haas:(2000). Choosing to comply: Theorizing from international relations and comparative politics. In D. Shelton (Ed.), *Commitment and compliance: The role of non-binding norms in the international legal system* (pp. 43-64). Oxford: Oxford University Press, USA.
- Heinrich, M. (2008, September 3). Nuclear states mull U.S.-India deal again as clock ticks. News. Reuters, Retrieved from: <http://goo.gl/OW1yeg>
- Heinzelman, K. (2008). Towards common interest and responsibilities. *The Yale Journal of International Law* 33(2), Retrieved from: <http://www.yale.edu/yjil/>

- Hibbs, M. (2008, March 13). NSG drafting exemption conditions anticipating India-IAEA agreement *Nucleonics Week*
- Holmes, Kim R. "The U.S. and India: Partnership for the 21st Century," February 26, 2007. <http://www.heritage.org/Research/AsiaandthePacific/hl998.cfm>
- Horner, D. Release of U.S.-India text does not quell controversy over US rights.. *Nuclear Fuels* 32(17)
- IAEA Board of Governors. (2008, July 9). The conclusion of Safeguards Agreements and Additional Protocols. An agreement with the Government of India for the Application of Safeguards to Civilian Nuclear Facilities. *Nuclear Verification*, Retrieved from: <http://goo.gl/17H6b5>
- IAEA. What we do. HTML. Retrieved from: <http://goo.gl/uKdlT3>
- IEA. (2007). World Energy Outlook 2007: China and India insights. Paris: OECD/IEA, Retrieved from: <http://www.worldenergyoutlook.org/2007.asp>
- India, Britain seeking closer ties. (2008, January 22). People's Daily Online, Retrieved from: <http://english.people.com.cn/90001/90777/90851/6342391.html>
- India n-deal may support 250,000 American jobs: US chamber. (2008, September 23). *Hindustan Times*, Retrieved from: <http://goo.gl/2CKbuZ>
- India, U.S. should look ahead: Jaswant. (2000, March 18). *The Hindu*, Retrieved from: <http://goo.gl/bo26dD>
- Indian Americans 'overjoyed' with US House nod to N-deal. (2008, September 29). *The Economic Times*, Retrieved from: <http://goo.gl/JYUFbT>
- Iyengar , P.K. Controversy over the nuclear deal. (2007, May 31). *The Hindu*, Retrieved from: <http://goo.gl/FGm688>
- Jansen, J. C., van Arkel, W. G., & Boots, M. G. (2004). Designing indicators of long-term energy supply security. *Netherlands Environmental Assessment agency*, Retrieved from: <http://goo.gl/ISq0nE>
- Kamdar, M. (2007, September, 30). Forget the Israel lobby. The Hill's next big player is made in India. *The Washington Post*, Retrieved from: <http://goo.gl/E3ROyR>
- Kaul, A. (2008, September 28). France will launch civil n-coop with India: Sarkozy. *Hindustan Times*, Retrieved from: <http://goo.gl/x3M3N8>
- Kellman, B (2000). Protection of Nuclear Materials. In D. Shelton (Ed.), *Commitment and compliance: The role of non-binding norms in the international legal system*, (pp. 487-504). Oxford: Oxford University Press, USA.

- Kessler, G. (2008, September 2). In secret letter, Tough U.S. line on India nuclear deal” *The Washington Post*. Retrieved from: <http://www.washingtonpost.com/wp-dyn/content/article/2008/09/02/AR2008090202733.html>.
- Khare, H. (2008, September 30). France backs India’s quest for energy. *The Hindu*, Retrieved from: <http://www.thehindu.com/2008/09/30/stories/2008093050440100.htm>
- Kimball, D. (2007). Henry J. Hyde United States / India peaceful atomic energy cooperation act of 2006 (P.L. 1090 - 401): *Introductory note. International Legal Materials* 46(2):1-30.
- Kimball, D. & Meier, O. (2008, August 20). Conflict of interest shadows Germany in upcoming controversial India nuclear trade decision, report shows. Arms Control Association (ACA), Retrieved from: <http://www.armscontrol.org/node/3291>
- Kimball, D. G., Ban, H., & Staples, S. (2008, August 15). Decision time on the Indian nuclear deal: help avert a nonproliferation disaster. Letter. Retrieved from: <http://www.armscontrol.org/system/files/NSGLetterGermanyAug15.pdf> .
- Kimball, D. G., & McGoldrick, F. (2007, August 3). U.S.-Indian nuclear agreement: A bad deal gets worse, Retrieved from: [http://www.armscontrol.org/pressroom/2007/20070803\\_IndiaUS](http://www.armscontrol.org/pressroom/2007/20070803_IndiaUS)
- Klug, F. (2008, September 3). US would stop nuke trade if India tests bomb” *Guardian*.
- Koshy, N. (2006). *Under the empire; India’s new foreign policy*. Left Word Books.
- Krishna, V. (2008, July 23). Deal-backers in US rejoice, plan ahead. *Hindustan Times*, Retrieved from: <http://www.hindustantimes.com/StoryPage/StoryPage.aspx?id=e31bcfe4-96f2-475d-84b1-cb61efda8edc>
- Lakshmi, R. (2008, September 2). A Secondary Role for U.S. in India’s Nuclear Future. *The Washington Post*, Retrieved from: <http://www.washingtonpost.com/wp-dyn/content/article/2008/09/01/AR2008090102728.html>
- Left Parties.(2008). *Left stand on the nuclear deal. Notes exchanged in the UPA-Left Committee on India-US civil nuclear cooperation*. New Delhi: Hari Singh Kang, Retrieved from: <http://goo.gl/ZXQXg9>
- Lockheed M. (2008). Asia Pacific/India. Website. Retrieved from: [http://www.lockheedmartin.com/asia\\_pacific/india/index.html](http://www.lockheedmartin.com/asia_pacific/india/index.html)
- Krepon, M. (2007, April 15). The nuclear flock. *Bulletin of the Atomic Scientists*

- Milestones in Indo-US N-deal. (2008, October 2). *Hindustan Times*, Retrieved from: <http://goo.gl/k7jGyq>
- Mohan, C. R. (2004). *Crossing the rubicon: The shaping of India's new foreign policy*. Palgrave Macmillan
- Mukherjee, K. (2008, September 8). India to sell nuclear deal to world, soothe critics. *Hindustan Times*, Retrieved from: <http://goo.gl/OqJ2BA>
- Mukherjee, P. (2008, September 30). India and global challenges: Climate change and energy security. *Asia Society*, New York, Retrieved from: <http://www.un.int/india/asia.pdf>
- Nalapat, M.D. (2008, September 9). China's betrayal at the NSG. UPI *Asia.com*, Retrieved from: <http://goo.gl/wjvpQL>
- Narlikar, A.(2006). Peculiar chauvinism or strategic calculation? Explaining the negotiating strategy of a rising India. *International Affairs* 82(1), 59-76.
- N Deal: ACA asks NSG to reject India-specific exemption draft. (2008, September 2). *The Economic Times*, Retrieved from: [http://economictimes.indiatimes.com/News/PoliticsNation/N\\_Deal\\_ACA\\_asks\\_NSg\\_to\\_reject\\_India-specific\\_exemption\\_draft/articleshow/3435211.cms](http://economictimes.indiatimes.com/News/PoliticsNation/N_Deal_ACA_asks_NSg_to_reject_India-specific_exemption_draft/articleshow/3435211.cms)
- N-deal 'ill-conceived': NYT. (2008, September 30). *Hindustan Times*, Retrieved from: <http://goo.gl/mimnRD>
- N-deal with US 'very favourable to India': Washington Post.. (2007, July 29). *Hindustan Times*, Retrieved from: <http://goo.gl/xHpJnr>
- Neelesh, M. (2008, September 6). China says it backs India's nuclear ambitions. *Tibet Sun*, Retrieved from: <http://goo.gl/OBYoFW>
- No rush, please. (2008, July 5). *The New York Times*, Retrieved from: [http://www.nytimes.com/2008/07/05/opinion/05sat3.html?\\_r=1&scp=7&sq=Nuclear+deal&st=nyt&oref=slogin](http://www.nytimes.com/2008/07/05/opinion/05sat3.html?_r=1&scp=7&sq=Nuclear+deal&st=nyt&oref=slogin)
- NSG waiver: India issues demarche to China. (2008, September 7). *The Times of India*, Retrieved from: <http://goo.gl/V6oW1D>
- Office of the General Counsel U.S. Nuclear Regulatory Commission. (2002). Nuclear Regulatory Legislation. *Nuclear Regulatory Commission*, 1(6). Retrieved from: <http://goo.gl/vxMdfI>
- Pachauri, R. K. (2004). The future of India's economic growth: the natural resources and energy dimension. *Futures* 36(6-7), 703-713.

- Pakistan voices concern over U.S.-India nuclear deal. (2007, August 3). *People's Daily Online*, Retrieved from: <http://goo.gl/kYeIOV>
- Pant, H. V. A fine Balance: India walks a tightrope between Iran and the United States. (2007). *Orbis a Journal of World Affairs* 51( 3), 503-504.
- Parthasarathi, A. (2008, March 17). The 123 doesn't add u: *Hindustan Times*, Retrieved from: <http://goo.gl/igloeY>
- Pereira, Neelam. "India's tryst with the N-Deal." *Current Science* 95, no. 7 (October 2008): 821-822.
- Perkovich, G. (2005). *Faulty promises: The US-India Nuclear deal*. Washington: Carnegie Endowment for International Peace.
- Powell, C. (2004). A strategy of partnerships. *Foreign Affairs* 83(1), Retrieved from: <http://goo.gl/EX8Xx4>
- Response to Representative Tom Lantos' letter of October 5 2007 concerning Congressional review of the U.S.-India Agreement for peaceful nuclear cooperation. (2008 January 16), Retrieved from: <http://goo.gl/UE7BKx>
- Rice, C. (2006, July 10). U.S.-India civil nuclear cooperation initiative. *Inaugural meeting of the American Association of Physicians of Indian Origin*, Retrieved from: <http://www.state.gov/secretary/rm/2006/68794.htm>
- Sharma, A. (2007). India and energy security. *Asian Affairs* 38, 158-172
- Sokolski, H. (2008, January 23). Mr. Rudd says no to India on uranium. *Far Eastern Economic Review*, Retrieved from: <http://goo.gl/LYa9ca>
- South Africa urged to block India's nuclear fuel bid. (2008, August 27). *Hindustan Times*, Retrieved from: <http://goo.gl/Og6ZKH>
- Talbott, S. (2005, July 21). Good day for India, bad for nonproliferation. *Yale Global*, Retrieved from: <http://yaleglobal.yale.edu/display.article?id=6042>
- Thyagaraj , M. & Raju G.C T. (2006). The U.S.-Indian nuclear agreement: Balancing energy needs and nonproliferation goals. *Orbis* 50(2), 355-369
- Toshiba. (2006, February 6). *Toshiba acquires Westinghouse from BNFL*. Toshiba Press release, Retrieved from: <http://goo.gl/omzdwO>
- United Nations. (1969, May 23). Vienna Convention on the Law of the Treaties 1969, Retrieved from: <http://goo.gl/7N9N5m>
- Uranium to India: A decision to face. (2008, July 24). *The Sydney Morning Herald*, Retrieved from: <http://goo.gl/bzBcc2>



- U.S. Congress 109th. (2006). *United States-India Peaceful Atomic Energy Cooperation Act of 2006 (Hyde Act)*. Report ; 109-721. Washington, D.C: U.S. G.P.O. Retrieved from: <http://lccn.loc.gov/2007395742>
- U.S. Department of State. (2007, August 3). Agreement for cooperation between the Government of the United States of America and the Government of India concerning peaceful uses of nuclear energy (123 Agreement), Retrieved from: <http://www.state.gov/r/pa/prs/ps/2007/aug/90050.htm>
- US Embassy in Delhi. *Reaching New Heights. US- India Relations in the 21st Century*. From: <http://goo.gl/lBeWRc>
- US-India nuclear agreement going through bottleneck (2008, September 2). *People's Daily Online*, Retrieved from: <http://goo.gl/HGp4r9>
- U.S. needs to make changes in deal: Scientists. (2007, June 18). *The Hindu*, Retrieved from: <http://goo.gl/gi1fth>
- Verma, S. K. (2007). Energy geopolitics and Iran-Pakistan-India gas pipeline. *Energy Policy* 35 , Retrieved from: <http://goo.gl/fqfqS1>
- Wable K. M. (2008). The U.S.-India strategic nuclear partnership:A debilitating blow to the non-proliferation regime. *Brooklyn Journal of International Law* 33(2)
- Weiss, L. (2006). Power points: U.S-India nuclear agreement is the wrong deal with the wrong energy source. *Bulletin of the Atomic Scientists* 62(3), 21-63.
- Weiss, L. U.S.-India nuclear cooperation. Better later than sooner. *Non proliferation Review* 14(3), 446-457
- White House. (2005, July 18). *Presidential News and speeches*, Retrieved from: <http://www.whitehouse.gov/news/releases/2005/07/20050718-6.htm>.
- White House Office of Communications. The United States-India Peaceful Atomic Energy Cooperation Act. Retrieved from: <http://goo.gl/C3c3N5>
- White House Office of the Press Secretary. (2004, January 12). Next steps in strategic partnership with India, Retrieved from: <http://goo.gl/dfs4K6>
- World Bank. (2008, October 17). *Gross domestic product 2007*, P:World Development Indicators database, World Bank, Washington: World Bank, Retrieved from: <http://goo.gl/g5z3KP>
- World Bank. World Bank data profile. *Country reports*. Retrieved from: <http://www.worldbank.org/>

