

# The Signing of the U.S.-India Agreement Concerning Peaceful Uses of Nuclear Energy

Jörn Müller\*

## Table of Contents

A. Introduction.....	180
B. The Nuclear Non-Proliferation Regime.....	181
I. The NPT and Non-Proliferation .....	181
II. The Importance of Nuclear Disarmament .....	183
III. Other Concessions: Peaceful Cooperation and Security Guarantees .....	184
IV. The NPT's Bargain at a Glance .....	185
V. Other Elements of the Non-Proliferation Regime .....	186
C. India and the Nuclear Non-Proliferation Regime .....	187
I. The History of India's Nuclear Program .....	187
II. The US-India Nuclear Agreement .....	189
III. The India-Specific Safeguards Agreement .....	190
IV. The Approval by the Nuclear Suppliers Group .....	191
D. The Compatibility of the Agreement with the NPT: A Preliminary Assessment.....	191
I. Possible Contravention of Art. I NPT by the United States .....	191
II. The US-India Agreement as a Gain for Non-Proliferation? .....	194
III. The Impact on Nuclear Disarmament.....	196
IV. Further Possible Repercussions .....	197
E. Conclusion .....	198

\* Jörn Müller, assessor iuris, doctoral candidate and research and teaching fellow at the Georg-August University, Göttingen. A member of the Scientific Advisory Board.

## A. Introduction

On 10 October 2008, the US Secretary of State Condoleezza Rice and the Indian Minister of External Affairs Pranab Mukherjee signed the “Agreement for Cooperation between the Government of the United States of America and the Government of India Concerning Peaceful Uses of Nuclear Energy” (hereafter: US-India Agreement).<sup>1</sup>

The text of the US-India Agreement had been agreed upon in summer 2007; the text was released on 3 August 2007. Preliminary assessments were mixed: Some scholars were highly critical, going so far as dubbing it a “debilitating blow to the non-proliferation regime”.<sup>2</sup> Others saw the deal more favourably, pointing to a possible strengthening of the nuclear non-proliferation regime through a better integration of India.<sup>3</sup> However, although the terms of the US-India Agreement have been known for some time, its impact depended on several other decisions that had to be made prior to its formal entry into force. In particular, India had to negotiate a safeguards agreement with the International Atomic Agency (IAEA). In addition, the Nuclear Suppliers Group (NSG) had to approve the US-India Agreement. Moreover, domestic approval both within India and the United States had to be reached. Several early commentators correctly pointed out that there was still room for possible modifications of the Agreement.<sup>4</sup> Moreover, it was entirely possible that the Agreement would be defeated altogether.<sup>5</sup>

<sup>1</sup> The agreement is available in full text at <http://www.state.gov/r/pa/prs/ps/2007/aug/90050.htm> (last visited 5 November 2008). It is also sometimes termed as “123 Agreement”, referring to section 123 of the US Atomic Energy Act of 1954, Pub. L. 109-401, 68 Stat. 919, which lays down the requirements under US domestic law for nuclear cooperation with other States.

<sup>2</sup> *Kesav Murthy Wable*, The U.S.-India Strategic Nuclear Partnership: A Debilitating Blow to the Non-Proliferation Regime, *Brooklyn Journal of International Law* 33 (2008) 719-759.

<sup>3</sup> *Kate Heinzelman*, Towards Common Interests and Responsibilities: The U.S.-India Civil Nuclear Deal and the International Nonproliferation Regime, *Yale Journal of International Law* 33 (2008) 447-478, 449.

<sup>4</sup> *Id.*, 472-478; *Oliver Meier*, The US-India Nuclear Deal: The End of Universal Non-Proliferation Efforts?, *Internationale Politik und Gesellschaft* (2006) 4, 28-43, 38-41.

<sup>5</sup> *Leonard Weiss*, U.S.-India Nuclear Cooperation. Better Later than Sooner, *Nonproliferation Review* 14 (2007) 429-457, 452; *Harald Müller & Carsten Rauch*, Der Atomdeal. Die indisch-amerikanische Nuklearkooperation und ihre Auswirkung

Now that all milestones have been reached and the Agreement has been formally concluded, this note will outline its background and its contents and give a brief assessment of its compatibility with and its impact on the international nuclear non-proliferation regime. The first part of the note will give a short overview of the international non-proliferation regime relevant for the US-India Agreement. The second part will deal with the evolution of the Agreement and will give some background information on the Indian nuclear program. The third part will give a preliminary assessment of the Agreement's impact on the global non-proliferation regime.

## B. The Nuclear Non-Proliferation Regime

### I. The NPT and Non-Proliferation

Numerous treaties,<sup>6</sup> Security Council resolutions<sup>7</sup> and soft law instruments<sup>8</sup> are part of the international regime against the proliferation of nuclear weapons, but the Nuclear Non-Proliferation Treaty (NPT)<sup>9</sup> with its 189 States parties forms its core.<sup>10</sup> Unlike other multi-lateral

auf das globale Nichtverbreitungsregime (2007), 23. Especially domestic approval in India turned out to be difficult, yet was finally achieved in summer 2008.

<sup>6</sup> Among them are: The Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water, 5 August 1963, 480 U.N.T.S. 43; the Treaty on the Limitation of Underground Nuclear Weapon Tests, 3 July 1974, 1714 U.N.T.S. 29637. In addition, there are several treaties establishing nuclear weapon free zones, such as the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean, 14 February 1967, 634 U.N.T.S. 326 and the South Pacific Nuclear Free Zone Treaty, 6 August 1985, 1445 U.N.T.S. 177.

<sup>7</sup> This includes the "legislative" Security Council Resolutions SC Res. 1540, UN SCOR, 4956<sup>th</sup> mtg., UN Doc. S/RES/1540 (28 April 2004) and SC Res. 1673, UN SCOR, 5429<sup>th</sup> mtg., UN Doc. S/RES/1673 (27 April 2006), dealing with the risk of proliferation of weapons of mass destruction to non-state actors. On the "legislative" function of the Security Council see: *Stefan Talmon*, *The Security Council as World Legislature*, *American Journal of International Law* 99 (2005) 175-193.

<sup>8</sup> Among these soft law instruments are the Nuclear Suppliers Group, the Proliferation Security Initiative and the Zangger Committee.

<sup>9</sup> Treaty on the Non-Proliferation of Nuclear Weapons, 1 July 1968, 729 U.N.T.S. 161.

<sup>10</sup> All UN member States (plus the Holy See) with the exception of India, Pakistan and Israel. North Korea withdrew from the NPT in 2003, although there have been some doubts as to the legality of its withdrawal. See *Heike Krieger*, *A Nuclear Test for Multilateralism - Challenges to the Non-Proliferation Treaty as a Means of Arms Control*, *German Yearbook of International Law* 49 (2006) 17-50, 26, 27 and *Andreas L. Paulus & Jörn Müller*, *Security Council Resolution 1718 on North Korea's Nuclear*

non-proliferation and disarmament conventions against the proliferation of weapons of mass destruction,<sup>11</sup> it does not universally prohibit the possession of the category of weapons it deals with. Instead, it divides the world into non-nuclear weapon States and nuclear weapon States. Only the latter are entitled to develop, produce and stockpile nuclear weapons. Non-nuclear weapon States are defined as those States that have not conducted a nuclear explosion prior to January 1, 1967 – *i.e.* all States with the exception of the United States, Russia, the United Kingdom, France and China (Art. IX para. 3 NPT). This is a closed group: other States may not join the NPT as nuclear weapon States even if they have developed nuclear weapons prior to this. Instead, they would have to disarm their nuclear weapons.<sup>12</sup> Since support for the NPT was initially far from universal, this exclusive definition was a means to dissuade States from first developing nuclear weapons in order to later join the NPT as a nuclear weapon State.

The distinction between nuclear weapon States and non-nuclear weapon States is reflected in the NPT's non-proliferation obligations in Art. I and II. According to Art. II NPT, the non-nuclear weapon States undertake "not to receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices." In addition, the non-nuclear weapon States may "not [...] manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices." Art. I NPT contains no such prohibition for the nuclear weapon States. However, they are obliged "not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly" and may not assist non-nuclear weapon States in developing nuclear weapons.

For verification purposes, Art. III NPT stipulates that all non-nuclear weapon States party to the NPT undertake to conclude safeguards agreements with the International Atomic Energy Agency (IAEA). They apply to all source or fissionable material in all peaceful nuclear activities within a non-nuclear weapon State party to the NPT so as to ensure that this material is not diverted to the production of nuclear weapons, for which it is

Test, American Society of International Law Insights 10 (3 November 2006), available at <http://www.asil.org/insights061103.cfm> (last visited November 2008).

<sup>11</sup> Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction, 13 January 1993, 1974 U.N.T.S. 45; Convention on the Prohibition of the Development, Production, and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, 10 April 1972, 1015 U.N.T.S. 163.

<sup>12</sup> The only State so far to do so was South Africa. For an overview, see *Joseph Cirincione & Jon Wolfsthal & Miriam Rajkumar, Deadly Arsenal: Nuclear, Biological and Chemical Threats*, 2<sup>nd</sup> ed. (2005), 407-415.

indispensable. Commonly, these safeguards are termed “comprehensive” or “full-scope safeguards.” Moreover, all States party to the NPT undertake not to provide source or special fissionable material or certain technology especially designed for the production, processing or use of such material to non-nuclear weapon States, unless safeguards apply to the material also in the importing State, even if that State is not a party to the NPT.

Due to the distinction between nuclear haves and nuclear have-nots, the NPT has been described as not being based on strict reciprocity.<sup>13</sup> However, others have described its bargain as “the exchange of non-acquisition and non-dissemination pledges between and among nuclear weapons States and non-weapons States alike, to the collective security benefit of all.”<sup>14</sup> Yet this explanation still falls short of providing reciprocity. Rather, the burden remains one-sided, since only non-nuclear weapon States have to relinquish nuclear weapons. Consequently, other elements in the NPT’s bargain are of crucial importance for restoring some form of material reciprocity, namely the pledge for nuclear disarmament and the promise not to interfere with and to cooperate in the field of civilian uses of nuclear energy.

## II. The Importance of Nuclear Disarmament

The disarmament pledge is contained in Art. VI NPT:

“Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control.”

The importance of the NPT’s nuclear disarmament component was repeatedly stressed by non-nuclear weapon States, as numerous UN General Assembly resolutions show.<sup>15</sup> Moreover, the periodical NPT Review

<sup>13</sup> See, *Krieger*, 22-24 (*supra* note 10). See also *Christopher Daase*, *Der Anfang vom Ende des nuklearen Tabus*, *Zeitschrift für internationale Beziehungen* 10 (2003) 7-41, 34.

<sup>14</sup> *Christopher A. Ford*, *The Nonproliferation Bestiary: A Typology and Analysis of Non-Proliferation Regimes*, *New York University Journal of International Law and Politics* 39 (2007), 937-993, 962.

<sup>15</sup> For recent examples see UN General Assembly Resolution 62/42: Nuclear disarmament, GA Res. 62/42, UN GAOR, 62<sup>nd</sup> sess., 61<sup>st</sup> plen. mtg., UN Doc.

Conferences unanimously adopted two landmark documents in 1995<sup>16</sup> and 2000,<sup>17</sup> which contained principles and objectives towards the aim of total nuclear disarmament. In particular, the latter document contained thirteen “practical steps for the systematic and progressive efforts to implement article VI”. Two concrete treaties are identified as indispensable intermediate steps towards nuclear disarmament: The Comprehensive Nuclear Test-Ban Treaty (CTBT)<sup>18</sup> and a convention banning the production of fissile material for nuclear explosive devices (commonly called Fissile Material Cut-Off Treaty, or FMCT). Moreover, further steps were mentioned, *inter alia* unilateral reductions of nuclear arsenals and a diminishment of the role for nuclear weapons in national security policies.<sup>19</sup> The NPT States parties have thus indicated how to interpret the disarmament obligation. The conclusion that Art. VI goes “beyond a mere obligation of conduct”, as the ICJ declared, is thus well-founded.<sup>20</sup>

### III. Other Concessions: Peaceful Cooperation and Security Guarantees

Before total nuclear disarmament can be achieved, some detrimental effects of the temporary discrimination have to be outweighed by concessions that are effective immediately. During the NPT negotiations, many non-nuclear weapon States were concerned that the nuclear weapon States would deny them the right to peaceful nuclear development and would keep advanced nuclear technology secret in order to minimize any

A/RES/62/42 (8 January 2008); UN General Assembly Resolution 62/37: Renewed determination towards the total elimination of nuclear weapons, GA Res. 62/37, UN GAOR, 62<sup>nd</sup> sess., 61<sup>st</sup> plen. mtg., UN Doc. A/RES/62/37 (10 January 2008); UN General Assembly Resolution 61/104: Comprehensive Nuclear-Test-Ban Treaty, GA Res. 61/104, UN GAOR, 61<sup>st</sup> sess., 67<sup>th</sup> plen. mtg., UN Doc. A/RES/61/104 (19 December 2006).

<sup>16</sup> Decision 2 adopted on 11 May 1995 at the 17th plenary meeting of the Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, 11 May 1995, NPT/CONF.1995/32 (Part I), 9-12.

<sup>17</sup> Final Document of the 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, 19 May 2000, NPT/CONF.2000/28 (Parts I and II).

<sup>18</sup> Comprehensive Nuclear-Test-Ban Treaty, 24 September 1996, 35 I.L.M. 1439, (not yet in force).

<sup>19</sup> See, NPT/CONF.2000/28 (Parts I and II), 14-15 (*supra* note 17).

<sup>20</sup> *Legality of the Use or Threat of Nuclear Weapons*, Advisory Opinion, I.C.J. Reports 1996, 226-267, 264 (para. 99). See also *Krieger*, 24 (*supra* note 10).

proliferation risk and to keep a technological advance.<sup>21</sup> To alleviate these concerns, Art. IV NPT was included, highlighting the “inalienable right” to “research, production and use of nuclear energy for peaceful purposes” within the limits of Art. I and II NPT. The States parties are furthermore committed to facilitating the exchange of equipment, materials and information for peaceful uses.

In particular the developing countries among the non-nuclear weapon States, saw this as an important incentive for joining the NPT. They have always insisted on active contributions by States with advanced nuclear technology. This was reflected in the final document of the 1995 NPT Review and Extension Conference and that of the 2000 NPT Review Conference, which also stated that non-nuclear weapon States party to the NPT should be given preferential treatment in activities designed to promote the peaceful uses of nuclear energy.<sup>22</sup>

In addition, non-aligned non-nuclear weapon States feared that they would be unable to credibly deter a nuclear attack without possessing nuclear weapons. They therefore pressed for security guarantees. Nevertheless, they were not integrated in the treaty but were only issued through unilateral declarations and in a very weak form through Security Council Resolutions.<sup>23</sup>

#### IV. The NPT’s Bargain at a Glance

The NPT’s web of rights and obligations is structured so as to achieve an inclusion of all interests concerned. The NPT is best described as resting on a layered form of reciprocity: While its central non-proliferation element is discriminatory, the treaty as a whole is intended to mitigate the effects of this inequality and to finally overcome nuclear weaponry. Progress in

<sup>21</sup> See, for example, the statement by the representative of India to the ENDC, Final Verbatim Record of the 298<sup>th</sup> Meeting, 23 May 1967, UN Doc. ENDC/PV.298, 4-17. For a contemporary introduction to the negotiations in that respect see *Mason Willrich*, *Non-Proliferation Treaty: Framework for Nuclear Arms Control* (1969), 127-150.

<sup>22</sup> See, NPT/CONF.1995/32 (Part I), 11 (para. 16) (*supra* note 16), and NPT/CONF.2000/28 (Parts I and II), 9 (*supra* note 17).

<sup>23</sup> UN Security Council Resolution 255: Question relating to Measures to Safeguard Non-nuclear-weapon States Parties to the Treaty on the Non-proliferation of Nuclear Weapons, SC Res. 255, UN SCOR, 1433<sup>th</sup> mtg., UN Doc. S/RES/255 (19 June 1968); UN Security Council Resolution 984, SC Res 984, UN SCOR, 3513<sup>th</sup> mtg., UN Doc. S/RES/984 (11 April 1995).

nuclear disarmament is thus the crucial *quid pro quo* by the nuclear weapon States for the renunciation of nuclear weapons by the other States parties.<sup>24</sup> All States parties agree that the nuclear world order provided for in the NPT is only a temporary *status quo*. The aim of the NPT is thus full material reciprocity in the field of nuclear weapons through their eventual elimination. To that end, the elements of the bargain are mutually reinforcing and depend upon their even-handed and good faith implementation in practice for their success.

## V. Other Elements of the Non-Proliferation Regime

While the NPT is at the core of the non-proliferation regime, in the context of the US-India Agreement other elements have to be taken into account: Firstly, the Comprehensive Nuclear Test-Ban Treaty, which has been ratified by 146 States. 44 States listed in its Annex 2 have to ratify the Treaty before it may enter into force. Nine of these States have not yet ratified, including India and the United States.<sup>25</sup> The Treaty bans all nuclear tests and establishes an elaborate verification regime that is able to detect and localize nuclear tests worldwide.

Secondly, the envisaged Fissile Material Cut-Off Treaty has to be considered. Its goal is to ban the production of fissionable material for nuclear explosive devices. However, there has been no progress in the negotiations in the Conference on Disarmament. Reportedly, this is mainly due to the resistance of China, Pakistan and Iran – but India also notably voiced concerns in 2007.<sup>26</sup>

Thirdly, the Nuclear Suppliers Group (NSG) is of particular relevance. The NSG is a voluntary association of States that export nuclear technology and material.<sup>27</sup> It has elaborated guidelines for exports of nuclear technology

<sup>24</sup> David A. Koplow, *Parsing Good Faith: Has the United States Violated Article VI of the Nuclear Non-Proliferation Treaty?*, *Wisconsin Law Review* (1993) 301-394, 336-337, in particular note 152, quoting US President Johnson acknowledging the *quid pro quo* character.

<sup>25</sup> State as of 14 November 2008. Further updates may be obtained from the CTBTO website at <http://www.ctbto.org/the-treaty/status-of-signature-and-ratification/> (last visited 14 November 2008).

<sup>26</sup> Shannon N. Kile, *Nuclear Arms Control and Non-Proliferation*, *SIPRI Yearbook* (2008) 337-365, 362.

<sup>27</sup> Initially, seven governments participated in the NSG (Canada, West Germany, France, Japan, the USSR, the United Kingdom, and the United States). At the time of writing (November 2008), 45 States participated in the NSG. For a list see

and material for peaceful purposes in order to prevent the transfer of these items to non-safeguarded activities.<sup>28</sup> Although these guidelines are only soft-law instruments, all participating States have consistently claimed to observe them – therefore they have considerable impact. In 1992, the NSG introduced a requirement of full-scope safeguards for recipients of nuclear technology and material.<sup>29</sup> To that end, the NSG has drawn up a “trigger list”: Items on this list may only be exported to States that have agreed upon full-scope safeguards agreements with the IAEA – they thus have to fulfil the requirement set out in Art. III NPT for non-nuclear weapon States. Yet the “trigger list” does not only cover fissionable material, but also dual-use technology, *i.e.* equipment and material useful to military nuclear activities that may also be used in peaceful (nuclear and non-nuclear) activities. Since the NSG comprises all major exporters of advanced nuclear technology, not meeting its requirements amounts to being cut off from the world market in this field.

## C. India and the Nuclear Non-Proliferation Regime

### I. The History of India’s Nuclear Program

The significance of the US-India Agreement can only be explained in context of the special position of India in the field of nuclear non-proliferation. As a State not party to the NPT, India has criticized the Treaty for its discriminatory distinction between nuclear haves and have-nots. When the NPT entered into force on 5 March 1970, India had already acquired nuclear technology and material that was not subject to safeguards. In particular, in the late 1950s India had built a reactor (called CIRUS) with Canadian assistance that used heavy water supplied by the United States. It was capable of producing plutonium suitable for nuclear weapons and was not subject to safeguards, although India had agreed to use the technology and material received for peaceful purposes only. Nevertheless, in 1974, India successfully conducted its first nuclear test for which it used

<http://www.nuclearsuppliersgroup.org/member.htm> (last visited 12 November 2008). A detailed self-description of the NSG is contained in the IAEA Information Circular ('The Nuclear Suppliers Group: Its Origins, Role and Activities'), 10 May 2005, IAEA Doc. INFCIRC/539/Rev. 3.

<sup>28</sup> IAEA Information Circular ('Guidelines for Nuclear Transfers'), 7 November 2007, IAEA Doc. INFCIRC 254/Rev.9/Part 1.

<sup>29</sup> Annex to IAEA Information Circular ('Guidelines for Nuclear Transfers'), October 1995, IAEA Doc. INFCIRC/254/Rev.2/Part 1.

plutonium produced in the CIRUS reactor. In an attempt to evade international criticism, India labelled the test a “peaceful nuclear explosion”.<sup>30</sup>

The United States responded by introducing the requirement of full-scope safeguards for recipients of nuclear technology and material into domestic law in 1978. India was not willing to accept such full-scope safeguards which would have rendered its nuclear weapons program all but impossible. Consequently, all US nuclear exports to India were cut off in 1980. Moreover, the US initiated the creation of the NSG and actively sought the participating States to also adopt the full-scope safeguards requirement. When the NSG finally adopted this requirement in 1992, India’s nuclear program was hampered to some extent due to the lack of access to the nuclear world market, especially since India was dependent on nuclear fuel imports for some of its reactors. Some relief came from Russia, which supplied fuel to India under a highly questionable interpretation of a safety exception of the NSG guidelines, and from France, which supplied fuel to India prior to its adoption of the NSG standards in 1995.<sup>31</sup>

Despite these problems, India was able to create an ambitious nuclear program with closely intertwined military and civilian components.<sup>32</sup> It built reactors that did not rely on imported fuel and constructed facilities for the domestic production of nuclear fuel, while at the same time advancing its research in nuclear weapons technology. Its military nuclear program culminated in a series of nuclear tests in 1998, the first and only Indian tests since the 1974 “peaceful” nuclear explosion.<sup>33</sup> These tests – and those by Pakistan which followed soon after – were condemned by the UN Security Council in its Resolution 1172.<sup>34</sup> India has probably assembled several dozen nuclear warheads; current estimates put the number at approximately

<sup>30</sup> For a description of the background to the 1974 test and the legal implications, see *Gary Milhollin*, *Stopping the Indian Bomb*, *American Journal of International Law* 81 (1987), 593-609, 595-596.

<sup>31</sup> *Paul K. Kerr*, *Congressional Research Service Report RL33016*. U.S. Nuclear Cooperation with India: Issues for Congress (Updated 17 October 2008), CRS-3.

<sup>32</sup> For an overview of India’s nuclear infrastructure see *Cirincione & Wolfsthal & Rajkumar*, 233-237 (*supra* note 12).

<sup>33</sup> See *Weiss*, 430-431 for a description of the political developments within India that led to the tests (*supra* note 5).

<sup>34</sup> UN Security Council Resolution 1172, SC Res. 1172, UN SCOR, 3890<sup>th</sup> mtg., UN Doc. S/RES/1172 (6 June 1998).

60.<sup>35</sup> It is not known how many nuclear weapons India intends to produce – the only public statements by officials are that they want to maintain a “minimum credible nuclear deterrent”.<sup>36</sup>

## II. The US-India Nuclear Agreement

At the same time, India actively sought for a way out of its nuclear isolation. Success came in 2005, when India and the United States agreed on a program for civilian nuclear cooperation.<sup>37</sup> India agreed to separate the military sector of its nuclear program from the civilian sector and to place the latter under IAEA safeguards. In turn, the US would lift domestic law restrictions on nuclear trade with India, in particular by dropping the full-scope safeguards requirement and seeking an exception from the NSG guidelines. Both sides proceeded on their respective parts of the deal: India prepared a separation plan,<sup>38</sup> whilst the US Congress made the necessary domestic legal changes.<sup>39</sup> The US administration was thus free to negotiate a civilian nuclear cooperation agreement, subject to approval by Congress,<sup>40</sup> which eventually led to the US-India Agreement.

In essence, the Agreement permits civilian nuclear trade between India and the United States. In return, India agrees to separate its military nuclear sector from its civilian sector and put the latter under IAEA

<sup>35</sup> Robert S. Norris & Hans M. Kristensen, *India's Nuclear Forces 2007*, Bulletin of the Atomic Scientists 64 (2007), 74-78, 74; Shannon N. Kile & Vitaiy Fedchenko & Hans M. Kristensen, Appendix 8A, *World nuclear forces, 2008*, SIPRI Yearbook (2008), 366-398, 389.

<sup>36</sup> See, Norris & Kristensen, 74 (*supra* note 35) and Cirincione & Wolfsthal & Rajkumar, 407-415 (*supra* note 12).

<sup>37</sup> For a detailed introduction into the political background see Weiss, 429-436 (*supra* note 5).

<sup>38</sup> For a description and analysis of the Indian separation plan see Shannon Squassoni, Congressional Research Service Report RL33292, *India's Nuclear Separation Plan: Issues and Views* (Updated 22 December 2006). The text of the plan was communicated to all IAEA members by IAEA Information Circular ('Implementation of the India-United States Joint Statement of July 18, 2005: India's Separation Plan'), 25 July 2008, IAEA Doc. INFCIRC/731.

<sup>39</sup> Henry J. Hyde, *United States-India Peaceful Atomic Energy Cooperation Act of 2006*, Pub. L. No. 109-401, tit. I, 120 Stat. 2726.

<sup>40</sup> The final approval came on 27 September 2008 with a House vote of 110-369 and on 1 October 2008 with a Senate vote of 86-13. The “United States-India Nuclear Cooperation Approval and Nonproliferation Enhancement Act”, Pub. L. 110-369 was signed into law by US President Bush on 8 October 2008, paving the way for the formal signing two days later.

safeguards. At first glance, this seems to be rather insignificant. Yet the Agreement is nonetheless remarkable for several reasons. Firstly, it enables trade in nuclear technology without India having to accept full-scope safeguards. Moreover, it enables nuclear trade with a State that is qualified as a non-nuclear weapon State under the NPT that has a full-fledged nuclear weapons program and stays outside the NPT. Although all trade is clearly limited to the civilian program and all fissionable material will be subject to safeguards as required by Art. III (2) NPT, this is nevertheless an extreme departure from previous US policy and that of the NSG. Secondly, a clear statement is missing that the US would terminate the agreement in case of a further nuclear test by India.<sup>41</sup> Thirdly, Art. 5 (6) of the Agreement contains terms committing the US to secure a reliable supply of nuclear fuel to India and to support an Indian effort to build a strategic nuclear fuel reserve to guard against any disruption of fuel supply over the lifetime of India's reactors. Although these provisions are so broad that they constitute more of a declaration of political intent than concrete legal obligations, they are nevertheless remarkable additions to the nuclear cooperation agreements previously concluded by the United States.

### III. The India-Specific Safeguards Agreement

After successful negotiations between the IAEA and India, the India-specific safeguards agreement was approved by the IAEA Board of Governors on 1 August 2008.<sup>42</sup> The Agreement has not yet entered into force, as this is dependent upon a declaration by India that its statutory and/or constitutional requirements have been met (Art. 104). The Safeguards Agreement is an "umbrella agreement", *i.e.* it details the safeguards procedure, yet India unilaterally determines to which facilities it will apply. However, once the Safeguards Agreement applies to a certain facility, India may not unilaterally withdraw the site from its application.

<sup>41</sup> *Wade Boese*, U.S.-Indian Nuclear Deal Advances, *Arms Control Today* 37 (2007), available at <http://www.armscontrol.org/epublish/1/109> (last visited 20 October 2008).

<sup>42</sup> The text of the Agreement has not yet been released to the public, but some information as to its content was made public by the IAEA Director-General, see *Kerr*, CRS-24-26 (*supra* note 31). The text of the final draft agreement (IAEA Doc. GOV/2008/30), which was in all likelihood adopted without changes, has been leaked and is available on various websites, *e.g.* at [http://www.isis-online.org/publications/southasia/India\\_IAEA\\_safeguards.pdf](http://www.isis-online.org/publications/southasia/India_IAEA_safeguards.pdf) (last visited 10 November 2008). The following remarks relate to this leaked final draft.

India also entered into negotiations on an Additional Protocol, which would strengthen IAEA verification rights.

#### IV. The Approval by the Nuclear Suppliers Group

Moreover, the US-India Agreement necessitated a waiver of the NSG requirement of full-scope safeguards. Some States attempted to attach conditions to such a waiver, such as an automatic termination, in case of a nuclear test by India. Yet, due to intense US pressure and lobbying,<sup>43</sup> India was finally granted an unconditional waiver.<sup>44</sup> The only concession India had to make was to issue a unilateral statement, detailing its commitment to non-proliferation.<sup>45</sup> However, the NSG explicitly took note of the steps initiated by India regarding the separation plan, the conclusion of a safeguards agreement with the IAEA and its unilateral non-proliferation pledge, but did not formally tie the waiver to the implementation of these steps by India. Rather, it is within the discretion of each NSG member State to decide of its own accord what steps to take if India does not stick to its promise. Since the NSG works through consensus, revoking the waiver requires universal support within the NSG. It therefore created a full-fledged exception from its requirement for full-scope safeguards for nuclear trade with India. The only requirement is that any transfers must be for peaceful purposes and that the material transferred is subject to safeguards.

#### D. The Compatibility of the Agreement with the NPT: A Preliminary Assessment

##### I. Possible Contravention of Art. I NPT by the United States

Since India is a non-nuclear weapon State in the terminology of the NPT despite possessing nuclear weapons, the Agreement may be contrary to

<sup>43</sup> *Wade Boese*, NSG, Congress Approve Nuclear Trade with India, Arms Control Today 38 (2008), available at [http://www.armscontrol.org/act/2008\\_10/NSGapprove](http://www.armscontrol.org/act/2008_10/NSGapprove) (last visited 14 November 2008).

<sup>44</sup> For the text of the NSG approval see the IAEA Information Circular ('Statement on Civil Nuclear Cooperation with India'), 19 September 2008, IAEA Doc. INFCIRC/734.

<sup>45</sup> Statement by External Affairs Minister of India Shri Pranab Mukherjee on the Civil Nuclear Initiative, 5 September 2008, available at <http://www.indianembassy.org.cn/press/20080916-1.htm> (last visited 14 November 2008)

US obligations under Art. I NPT “not in any way to assist, encourage, or induce any non-nuclear-weapon State to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices”. Critics argue that the Agreement may have the effect of assisting India in its nuclear weapons program.<sup>46</sup> Accordingly, the provision of fissionable material by the US to India would free its limited domestic resources for use in its nuclear weapons program, enabling it to produce nuclear weapons faster and in greater numbers.<sup>47</sup> Whether this is in fact true is open to some debate,<sup>48</sup> although clearly the ability to buy fissionable material on the world market will be advantageous for the Indian nuclear program as a whole.

Nevertheless, this does not necessarily amount to “assistance”, qualified as illegal under Art. I NPT. According to economics theory, any form of trade beneficial to India’s economy makes free resources that may be used in a nuclear weapons program.<sup>49</sup> Yet the NPT is clearly not intending to stifle trade. Moreover, according to Art. IV (2), one of its aims is to facilitate nuclear cooperation among the States parties. Since such cooperation is almost always potentially useful to a nuclear weapons program,<sup>50</sup> the question of what amounts to “assistance” is crucial. The answer may be found in Art. III, which clarifies that the transfer of source or special fissionable material and of equipment needed for the processing, production or use of special fissionable material is legal, as long as it is

<sup>46</sup> See, *Weiss*, 452 (*supra* note 5).

<sup>47</sup> The problem was already identified in 1969 by *Willrich* (*supra* note 21).

<sup>48</sup> *Ashley J. Tellis*, *Atoms for War? U.S.-Indian Civilian Nuclear Cooperation and India’s Nuclear Arsenal* (2006) 37, concludes that India’s resources are sufficient to both pursue a civilian and a large scale nuclear weapons program. In contrast, a study concludes that India’s current Uranium production is not sufficient for both its civilian reactors and its current nuclear weapons program, see report of *Zia Mian & Abdul H. Nayyar & Ramamurti Rajaraman & M.V. Ramana*, *Fissile Materials in South Asia: The Implications of the U.S.-India Nuclear Deal*, International Panel on Fissile Materials (IPFM), September 2006, available at [http://www.fissilematerials.org/ipfm/site\\_down/ipfmresearchreport01.pdf](http://www.fissilematerials.org/ipfm/site_down/ipfmresearchreport01.pdf) (last visited 20 October 2008). Likewise, Meier and Neuneck conclude that the deal would allow India to expand its production from seven to 40-50 nuclear weapons per year, *Oliver Meier & Götz Neuneck*, *Der Atomdeal zwischen Indien und den Vereinigten Staaten: Nukleare Nichtverbreitung am Scheideweg*, *Hamburger Informationen zur Friedensforschung und Sicherheitspolitik* 37 (2006), 1-8, 5. In addition, *Zia Mian & M.V. Ramana*, *Wrong Ends, Means, and Needs: Behind the U.S. Nuclear Deal With India*, *Arms Control Today* 36 (2006) 11-17 describe numerous benefits to the Indian nuclear weapons program if India acquires access to external fuel for its civilian reactors.

<sup>49</sup> See, *Tellis*, 10 (*supra* note 48).

<sup>50</sup> See, *Willrich*, 94 (*supra* note 21).

covered by safeguards that prevent the diversion to a nuclear weapons program. These safeguards have to cover the material or equipment that is transferred. The US-India Agreement requires such limited safeguards and is thus technically not in violation of the NPT. However, the argument may be made that the whole NPT safeguards system was only designed for non-nuclear weapon States parties to the Treaty, that have to adopt full-scope safeguards and are prohibited from conducting a nuclear weapons program. Consequently, trade in fissionable material with States who are not party to the Treaty should then be limited to those that also accept full-scope safeguards. Yet although this may be desirable, there is no indication in the text of the NPT to that end.

Other critics even go so far as to argue that Pakistan may feel threatened by the Agreement and thus be induced to proliferate nuclear weapons.<sup>51</sup> However, such a conclusion depends upon too many conditions. Therefore, to conclude that Art. I NPT takes into account even such remote possibilities seems to be far-fetched.

Nevertheless, transferring nuclear material and technology to a State that actively pursues a nuclear weapons program has its risks. Firstly, even the best safeguards agreement may not prevent technology transfers between a military and a civilian program, as long as no material, but only knowledge is transferred.<sup>52</sup> Secondly, there is always the risk of direct transfers in violation of international obligations – as India did in the 1970s when it used the CIRUS reactor in its military program. While the NPT does not prohibit taking these risks, these concerns were behind the idea to adopt the full-scope safeguards requirement in the NSG. The US-India Agreement may thus set a dangerous precedent, as it will be difficult to argue that different standards have to be applied to similar agreements, for example between China and Pakistan.

In addition, in concluding nuclear cooperation agreements with India, other States may feel less inclined to impose strict conditions on the use of dual-use equipment. This points to a rather peculiar loophole in the NPT that affects the relationship between non-nuclear weapon States inside and outside of the Treaty: there is no clear obligation for a non-nuclear weapon State party to the treaty not to assist a non-nuclear weapon State not party to the treaty in a nuclear weapons program.<sup>53</sup> If no such obligation existed,

<sup>51</sup> See, *Wable*, 730 (*supra* note 2).

<sup>52</sup> *Id.*, 730-732.

<sup>53</sup> See, *Willrich*, 96 (*supra* note 21); *Mohamed I. Shaker*, *The Nuclear Non-Proliferation Treaty: Origin and Implementation 1959-1979* (1980), 268.

assistance for India's nuclear weapons program by a non-nuclear weapon State party to the NPT would not be contrary to the NPT. However, if one regards general non-proliferation as one of the NPT's central aims, such assistance would run counter to its object and purpose. This may be inferred from Art. III (2) NPT, which requires safeguards to be applied to all nuclear exports, even to a non-nuclear weapon State not party to the NPT. Nevertheless, such a conclusion is by no means invulnerable to criticism, since the safeguards system only covers certain types of equipment and only refers to the transfer for peaceful purposes.<sup>54</sup> Consequently, the arguments advanced by the United States<sup>55</sup> and the Soviet Union<sup>56</sup> for closing the gap have been met with some degree of scepticism.<sup>57</sup> The US-India nuclear deal may therefore revive the argument about this apparent loophole – certainly not a welcome side effect, given the fact that at least some legal uncertainty remains.

## II. The US-India Agreement as a Gain for Non-Proliferation?

Proponents of the deal argue that it will bring India closer to the non-proliferation regime, since India commits to non-proliferation and accepts safeguards for a great number of previously unsafeguarded nuclear facilities.<sup>58</sup> Yet while this is certainly a gain, it has to be noted that the effect upon India's nuclear weapons program is minimal: according to the separation plan, those facilities that are of particular concern with regard to proliferation will not be safeguarded. Moreover, the separation plan is

<sup>54</sup> Article III (2) reads: "Each State Party to the Treaty undertakes not to provide: (a) source or special fissionable material, or (b) equipment or material especially designed or prepared for the processing, use or production of special fissionable material, to any non-nuclear-weapon State for peaceful purposes, unless the source or special fissionable material shall be subject to the safeguards required by this Article."

<sup>55</sup> The US argued that in case of such assistance "the presumption would immediately arise that these acts had the purpose of developing nuclear weapons for itself, in violation of the treaty." Statement by the US Representative to the Eighteen Nation Committee on Disarmament, 27 February 1968, UN Doc. ENDC/PV.370, 28.

<sup>56</sup> The Soviet Union argued that since Article III (2) NPT requires safeguards to be applied to the transfer of equipment or material to any non-nuclear weapon State even if that State is not a party to the NPT, it is designed as a barrier against any assistance in a nuclear weapons program. See the Statement by the USSR Representative to the Eighteen Nation Committee on Disarmament, 27 February 1968, UN Doc. ENDC/PV.370, 20-21.

<sup>57</sup> See, *Willrich*, 96 (*supra* note 21).

<sup>58</sup> See, *Heinzelman*, 462 (*supra* note 3).

merely a unilateral declaration of intent that has not been incorporated in the Indian IAEA Safeguards Agreement. Particularly aberrant in this respect is the fact that India designated the CIRUS reactor as a military facility that will not be safeguarded – this may be seen as a belated acceptance of its misappropriation for military purposes by the United States.<sup>59</sup> In regard to future facilities, India will unilaterally decide if they will be safeguarded – although from then on they may not be unilaterally withdrawn from the application of the Safeguards Agreement.

However, the preamble of the Indian IAEA Safeguards Agreement contains some language that casts doubt on this perpetual application:

“An essential basis of India’s concurrence to accept Agency safeguards under an India-specific safeguards agreement (hereinafter referred to as “this Agreement”) is the conclusion of international cooperation arrangements creating the necessary conditions for India to obtain access to the international fuel market, including reliable, uninterrupted and continuous access to fuel supplies from companies in several nations, as well as support for an Indian effort to develop a strategic reserve of nuclear fuel to guard against any disruption of supply over the lifetime of India’s reactors;[...].”

Similar reference to the importance of these cooperation agreements is made in Art. 4 of the Indian IAEA Safeguards Agreement. Moreover, the preamble states that

“India may take corrective measures to ensure uninterrupted operation of its civilian nuclear reactors in the event of disruption of foreign fuel supplies;”

This seems to suggest that India may unilaterally withdraw some facilities from its application or that it may terminate the Agreement. While there is no language to that end in the operative part, the repeated reference to the importance of international cooperation agreements may be designed by India so as to facilitate a claim for a fundamental change of

<sup>59</sup> See, *Weiss*, 451 (*supra* note 5). However, India has stated that it will shut down the reactor by 2010.

circumstances (Art. 62 Vienna Convention on the Law of Treaties)<sup>60</sup> in case these cooperation agreements fail.

Moreover, the gain to the international non-proliferation regime is also questionable for another, more substantive reason: while India unilaterally stated that it will commit to international non-proliferation efforts and that it will refrain from proliferating nuclear technology, it has not accepted such comprehensive legal commitments. While the nuclear material in the facilities that India designates as civilian and subjects to IAEA safeguards may not legally be transferred to a nuclear weapons program in a third State, similar binding legal commitments do not apply India's military technology and material not subject to safeguards. India has not accepted binding obligations in relation to non-proliferation similar to these of the nuclear weapon States under the NPT.

### III. The Impact on Nuclear Disarmament

The short review of the NPT structure has shown that despite its weakness, the disarmament pillar remains the cardinal *quid pro quo* for the renunciation of nuclear weapons by the non-nuclear weapon States. The commitment to this pillar is thus essential for the balance of rights and obligations in the Treaty. If a State armed with nuclear weapons remains outside these disarmament obligations, the international non-proliferation regime will be deficient, since the NPT's goal of creating security through a world free of nuclear weapons is then unattainable. The fact that States continue to possess nuclear weapons outside the NPT regime is thus a huge challenge, since they are not incorporated in the NPT's web of rights and obligations. On the contrary, the existence of nuclear weapons in States not party to the NPT may even be used as justification by the nuclear weapon States for their continued possession of nuclear weapons. An effort to incorporate India closer in the international non-proliferation system should therefore not only address questions of proliferation, but also of disarmament.

Yet the US-India Agreement does almost nothing to that end. It contains no binding disarmament commitments – not even preliminary steps, such as a pledge to ratify the CTBT. India only unilaterally declared its commitment to a “voluntary, unilateral moratorium on nuclear testing”.<sup>61</sup> Moreover, a clear signal that the international community will not tolerate a

<sup>60</sup> Vienna Convention on the Law of Treaties, 23 May 1969, 1155 U.N.T.S. 331.

<sup>61</sup> Statement by the Indian External Affairs Minister, (*supra* note 45).

future Indian nuclear test is missing both from the NSG approval and the US-India Agreement. However, given the hostility shown by the outgoing US administration towards multilateral nuclear disarmament efforts, this does not come as a surprise.<sup>62</sup> It is an ironic outcome that India, which repeatedly and eloquently criticized the weakness of the disarmament pillar of the NPT,<sup>63</sup> now does not even accept these obligations incumbent on the nuclear weapon States. The unilateral declarations that India will support a multilateral Fissile Material Cut-Off Treaty and its reference to its vision of a world free of nuclear weapons may be nice diplomatic gesture politics but do nothing in terms of true legal commitments.

In sum, the US-India Agreement, the separation plan provided by India and the IAEA Safeguards Agreement guarantee maximum flexibility for India's future nuclear policies. In particular, they accredit maximum flexibility in regard to future nuclear testing.

#### IV. Further Possible Repercussions

One also has to note that the path taken by the US was decidedly non-multilateral.<sup>64</sup> The IAEA and the NSG were only involved after the deal had been announced – and all concerns voiced there were brushed aside. Moreover, contrary to the consensus of the NPT States parties,<sup>65</sup> the US has chosen to accredit preferential treatment on a State not party to the NPT, thereby probably frustrating a number of developing States aspiring to use nuclear energy peacefully.

Given the fact that the Conference on Disarmament has now been blocked for years, this may have been the only way forward to a successful agreement with India – although there is reason to believe that the West, and in particular the United States, has to bear its share of the blame for the multilateral impasse. Nevertheless, the NPT's web of rights and obligations is fragile and depends upon active support by all of its parties. Now that it

<sup>62</sup> See *Patricia Hewitson*, Nonproliferation and Reduction of Nuclear Weapons: Risks of Weakening the Multilateral Nuclear Nonproliferation Norm, *Berkeley Journal of International Law* 21 (2003), 405-494 for an insight into the approach taken by the outgoing US administration.

<sup>63</sup> See, for example, the statement by the Indian representative, UN General Assembly, 22<sup>nd</sup> Session, First Committee, 1567<sup>th</sup> Meeting, 14 May 1968, Official Records, UN Doc. A/C.1/PV.1567, 11-17, in particular para. 119.

<sup>64</sup> See, *Wable*, 737 (*supra* note 2).

<sup>65</sup> See NPT/CONF.1995/32 (Part I), 11 (para. 16.) (*supra* note 22) and NPT/CONF.2000/28 (Parts I and II), 9.

has attained virtual universality, the question of how to incorporate the remaining nuclear holdout States is without doubt one of the most pressing challenges the nuclear non-proliferation regime faces. Consequently, any solution has to be supported not just by a few States, but by all. Yet any such multilateral solution has been considerably hampered, since India will probably see no need to make any concessions now that it has achieved full *de facto* recognition as a nuclear weapons State.

## E. Conclusion

The US-India Agreement is largely a concession to India's demands. India had to accept virtually no binding legal restrictions on its nuclear policies and its nuclear weapons program while simultaneously gaining access to the global market in nuclear technology and material. It therefore signals that persistent resistance to the NPT pays off in the long run.<sup>66</sup> This may undermine efforts to convince nuclear threshold countries such as Iran to stay in the system. Imposing stronger safeguards on non-nuclear weapon States may be rendered more difficult.<sup>67</sup>

Nevertheless, the more contentious terms of the US-India Agreement are stipulated in rather general language and thus depend upon their actual implementation. Its immediate legal impact thus seems to be limited. Yet while the US-India Agreement as such is not in direct contravention of any NPT provisions, it will almost certainly have negative repercussions on the NPT's bargain as a whole. While it may be true that the Agreement will not induce a non-nuclear weapon State to initiate a nuclear weapons program,<sup>68</sup> the extent of this damage to the system remains to be seen. It will depend to a large extent on India's future conduct. In this regard, India should constantly be reminded that it must live up to the standards it has been advocating since the 1950s, namely working towards a world free of nuclear weapons. With the conclusion of the US-India Agreement, the argument that the non-proliferation order is discriminatory towards India no longer applies.

<sup>66</sup> The concerns voiced by *William C. Potter* in 2005 were thus not taken into account; see *William C. Potter*, *India and the New Look of U.S. Nonproliferation Policy*, *Nonproliferation Review* 12 (2005), 343-354.

<sup>67</sup> See, *Weiss*, 451 (*supra* note 5).

<sup>68</sup> See, *Heinzelman*, 463 (*supra* note 3).