

# Chapter 2

## The Obligations of Nuclear-Weapon States Not to Transfer Nuclear Weapons and Devices (Article I NPT)

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**Abstract** This chapter considers the obligations of Nuclear-Weapon States under Article I of the Treaty on the Non-proliferation of Nuclear Weapons (NPT). The chapter reviews the context applying at the time the NPT was negotiated and contrasts the contemporary security environment, considering how this new context shapes the present approach to commitments on non-proliferation. The chapter also reviews the role and obligations of those States with nuclear-weapon capability who are outside of the NPT regime and considers whether there exists a norm of non-proliferation, notwithstanding that the NPT does not directly constrain those States who have declined to accede to the Treaty. The chapter highlights that while the NPT Nuclear-Weapon States have repeatedly confirmed their commitment to preventing proliferation of nuclear weapons technology, to effect a norm of non-proliferation, the obligation not to transfer requires cooperation by the non-NPT States and a commitment to effective enforcement by the international community in the event of a breach.

### Contents

2.1 Introduction.....	24
2.2 Negotiation of the NPT.....	24
2.3 Nuclear-Weapon States and Compliance with Article I.....	28
2.4 Non-Proliferation in the Post-Cold War Security Environment.....	31
2.5 Non-NPT States.....	33
2.6 Other Agreements Supporting Nuclear Non-Proliferation.....	37
2.7 Conclusion.....	43
References.....	44

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## 2.1 Introduction

The Treaty on the Non-proliferation of Nuclear Weapons (NPT)<sup>1</sup> has as a principal aim control of the spread of nuclear weapons. A key means of achieving that aim is established by Article I through which nuclear-weapon States (NWS) commit not to transfer nuclear weapons or nuclear explosive devices or control over such weapons or devices to any recipient, and further, not to assist non-nuclear-weapon States (NNWS) to acquire nuclear weapons or explosive devices. Non-proliferation is further supported by the commitment of NNWS not to acquire nuclear weapons, pursuant to Article II NPT and the obligation of all States under Article III NPT not to transfer to NNWS source or special fissionable material or equipment for the processing, use or production of special fissionable material, unless the material is subject to International Atomic Energy Agency (IAEA) safeguards.

This chapter seeks to explore the extent of the obligations created by Article I, particularly in light of the changed security and technological environment in the post-Cold War era, compared to the state of play which led to the negotiation of the terms of the NPT in 1968. It also considers a series of other agreements with varying participation rates, which have been developed overtime, which provide support for a nuclear non-proliferation norm.

The chapter commences with a brief review of the history leading to the conclusion of the NPT and the role of the then NWS in determining the terms on which they would agree to enter the Treaty. The [Sects. 2.2](#) and [2.3](#) examine the current context within which the NPT operates and the resulting new proliferation concerns of the NWS and the international community more broadly. Given the general consensus as to the desirability of preventing further proliferation of nuclear weapons, [Sect. 2.5](#) considers the role and obligations of States outside of the NPT regime. [Section 2.6](#) reviews other international agreements and initiatives that have been devised to assist in the prevention of nuclear proliferation before the chapter concludes with some observations as to the potential emergence of a customary international law norm of nuclear non-proliferation.

## 2.2 Negotiation of the NPT

After the end of the Second World War, the United States (US) and the Soviet Union (USSR) had been involved in intermittent negotiations aiming to limit, and ultimately reverse, their nuclear arms race.<sup>2</sup> Linked to those discussions was the

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<sup>1</sup> The Treaty on the Non-Proliferation of Nuclear Weapons—NPT—(1 July 1968), 729 *UNTS* 161, <http://www.un.org/disarmament/WMD/Nuclear/NPTtext.shtml>.

<sup>2</sup> Simpson et al. 2010, pp. 1–3, pp. 1–5.

desire to curb further nuclear proliferation; however, the superpowers had been unable to reach agreement as to the mechanics of such. In 1953, United States President Eisenhower in his 'Atoms for Peace' speech to the United Nations General Assembly noted the terrible potential of nuclear weapons and called for the creation of an organisation to promote the peaceful use of nuclear energy, and which would also ensure that nuclear energy not serves any military purpose.<sup>3</sup> The proposal, which led to the creation of the IAEA, was accompanied by ideas for nuclear disarmament as well as control over technology.<sup>4</sup>

As efforts to try to outlaw nuclear weapons failed in the course of the Cold War, attention shifted to preventing the spread of nuclear weapons to other States.<sup>5</sup> In 1961, the UN General Assembly unanimously approved an Irish Resolution which called for the negotiation of an international agreement to prevent the wider dissemination of nuclear weapons, under which nuclear States would undertake to refrain from relinquishing control of nuclear weapons and from transmitting the information necessary for their manufacture to States not possessing such weapons, and ... States not possessing nuclear weapons would undertake not to manufacture or otherwise acquire control of such weapons.<sup>6</sup>

In 1965, the UN General Assembly recommended the principles on which such a treaty should be based, which included among other things, an 'acceptable balance of mutual responsibilities and obligations of the nuclear and non-nuclear powers' and which should avoid 'any loop-holes which might permit nuclear or non-nuclear powers to proliferate, directly or indirectly, nuclear weapons in any form'.<sup>7</sup>

The national interests of each of the US and the USSR were served by preventing the acquisition of nuclear weapons by other States.<sup>8</sup> The US, it is suggested, was concerned at the possibility of being dragged by nuclear-armed allies into a catastrophic war that it could not control, while the USSR was concerned at the potential security threat associated with having potential NWS bordering its territory, particularly after China tested its first nuclear bomb in 1964.<sup>9</sup> In fact, the acquisition of nuclear weapons by China is thought to have been one of the crucial motivations for the superpowers to reach agreement on a treaty which would curtail further nuclear weapons acquisition.<sup>10</sup>

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<sup>3</sup> Fischer 1997, p. 9.

<sup>4</sup> Ibid.

<sup>5</sup> Den Dekker 2001, p. 271.

<sup>6</sup> United Nations General Assembly, Resolution 1665 (XVI), "Prevention of the wider dissemination of nuclear weapons", 4 December 1961.

<sup>7</sup> United Nations General Assembly, Resolution 2028 (XX), "Non-proliferation of nuclear weapons", 19 November 1965.

<sup>8</sup> Simpson et al. 2010, pp. 1–3.

<sup>9</sup> Ibid.

<sup>10</sup> Fischer 1981, p. 14.

In addition to serving the interests of existing nuclear powers, curbing the spread of nuclear weapons technology was seen as beneficial for States who did not have, or had not yet developed, nuclear weapons capabilities. The bargain thus struck between the NWS and NNWS through the NPT rested upon a perceived shared interest in preventing nuclear proliferation and on mutually compatible, but not identical, national security interests, with NWS interested in maintaining the system in which there were as few nuclear-capable actors as possible, and NNWS benefitting through the ability to act in an international system in which most potential adversaries would not have nuclear weapons.<sup>11</sup> The key mechanism for the operation of the NPT is the divide between NWS and NNWS, with the NWS representing that group of nations which had exploded a nuclear device prior to 1 January 1967.<sup>12</sup> Only five states, therefore, are considered to be NWS for the purposes of the NPT: China, France, the Russian Federation, the United Kingdom and the United States.

While having a fundamental aim to control the spread of nuclear weapons,<sup>13</sup> the NPT operates through the promise by NNWS to not seek to acquire nuclear weapons, in exchange for cooperation in the peaceful use of nuclear technology and a commitment by the NWS to negotiate to achieve nuclear disarmament. These three pillars of non-proliferation, peaceful civil use and disarmament thus form the basis for the NPT. The declared NWS commitment to non-proliferation arises under Article I NPT, with the undertaking not to provide assistance to others to acquire control or ownership of nuclear weapons or associated explosive devices. However, prior to the negotiation of the NPT, the US had been involved in a limited exchange of nuclear weapons technology with key allies. The motivations behind the US decision to provide to its allies certain technical information on its nuclear weapon designs included the desire to share the cost of providing a nuclear deterrent capability, through the provision of delivery capabilities.<sup>14</sup> Also, in light of indications that certain Western European States were involved in indigenous nuclear weapons programmes, the US hoped that providing the capability of delivering US nuclear weapons, if necessary, would remove the incentive for such States to continue with their national programmes to acquire nuclear weapons.<sup>15</sup> The US had also engaged in close collaboration with the United Kingdom (UK) on the development and manufacture of nuclear weapons.<sup>16</sup> In 1985, subsequent to the entry into force of the NPT (and before France joined the NPT), the US also entered into similar cooperative arrangements with France.<sup>17</sup>

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<sup>11</sup> Den Dekker 2001, p. 74.

<sup>12</sup> NPT Article IX.3.

<sup>13</sup> Jonas 2005, p. 420.

<sup>14</sup> Simpson 2010, pp. 1–4.

<sup>15</sup> *Ibid.*

<sup>16</sup> *Ibid.*

<sup>17</sup> *Ibid.*

Given its practice of collaboration with the UK in relation to nuclear weapons technology, the US was concerned that the text of the NPT should allow this arrangement to continue.<sup>18</sup> It also wanted to ensure the Treaty permitted existing NATO arrangements which provided for the transfer of nuclear weapons for use on NNWS-owned delivery systems, in the event of hostilities.<sup>19</sup> The USSR was concerned that the Treaty's terms would not legitimise any multilateral force (MLF) arrangement, where, for example, ships owned by several NATO countries could be armed with US nuclear weapons.<sup>20</sup> The resulting text of Articles I and II thus implicitly permits the storage and deployment of nuclear weapons owned by NWS in the territory of NNWS, but prevents multilateral nuclear weapon sharing.<sup>21</sup> It is suggested that having regard to the NPT's negotiating history, it was not the intention of the US and the UK, nor that of their western allies, that Articles I and II prohibit the placement of nuclear weapons by NWS on NNWS territory, nor to prohibit the transfer of nuclear weapons in the event of war.<sup>22</sup> Mutual assistance between nuclear weapons states was also not proscribed.<sup>23</sup>

The NWS through Article I, then, commit to restrictions on horizontal proliferation to NNWS. Of relevance, the requirement not to transfer nuclear weapons or associated technology rested on the assumption operating in the late 1960s that only a few countries knew how to acquire nuclear weapons. The idea that the technologies needed to make nuclear explosives are a barrier to proliferation is increasingly deficient, such that the decision to acquire nuclear weapons presently is largely a political one.<sup>24</sup> Despite the aim of the NPT being to prevent the spread of nuclear weapons through transfer of weapons or relevant technology, in reality, States have maturing technology such that the premise of the treaty that of basic scarcity and the demanding character of the technology<sup>25</sup> is likely to have limited enduring relevance.

Instead, a prime concern relates to the will of States to comply with the obligation not to proliferate. In circumstances where there are States outside of the NPT regime, this is particularly relevant, as nuclear-capable states outside of the NPT could potentially jeopardise the NPT bargain through the transfer of weapons or technology, or through the supply of materials which are not adequately monitored to ensure their use for civilian purposes. The latter concern is also relevant to the supply of nuclear or dual-use materials generally, as the provision of sensitive material without appropriate safeguards could potentially result in covert development of nuclear weapons programs.

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<sup>18</sup> *Ibid.*, at pp. 1–5.

<sup>19</sup> *Ibid.*

<sup>20</sup> Federation of American Scientists 2013.

<sup>21</sup> Simpson 2010, pp. 1–5; Federation of American Scientists 2013.

<sup>22</sup> Simpson 2010, pp. 1–7.

<sup>23</sup> *Ibid.*

<sup>24</sup> Fischer 1992, p. 18.

<sup>25</sup> Keeley 1998, p. 22.

In light of these proliferation challenges, the [Sect. 2.3](#) of this chapter review the record of the five NPT NWS in complying with their Article I obligations, followed by a consideration of the practice of the other nuclear-weapon capable States, India, Pakistan and Israel, given the latter are not directly constrained by the NPT.

## 2.3 Nuclear-Weapon States and Compliance with Article I

From the above brief discussion, it is apparent that assistance between NWS occurred prior and subsequent to the entry into force of the NPT. China and France, who were not original signatories to the NPT despite both meeting the definition of a nuclear-weapon State at the time the NPT opened for signature, also have been accused of facilitating nuclear weapons proliferation. Over time, proliferation concerns have also related to the potential for inadvertent assistance to be provided to NNWS or States outside the NPT. This section reviews briefly the nature of charges raised against the NWS in relation to potential failings of compliance with their Article I obligations.

China and France both joined the NPT in 1992. Prior to the negotiation of the NPT, France had cooperated with Israel in relation to nuclear arms production, with its early research assistance said to have allowed Israel to go on to develop a nuclear weapons capability.<sup>26</sup> Subsequently, when the NPT opened for signature, despite not initially signing the Treaty, France did pledge to behave as if it were a signatory State.<sup>27</sup> China, however, had initially subscribed to the view that NNWS should be entitled to acquire nuclear weapons capability on the grounds of non-discrimination and prior to 1984 could be viewed as having been openly hostile to the main objective of the non-proliferation regime.<sup>28</sup> For example, prior to the conclusion of the NPT, China's position had been stated as:

China hopes that Afro-Asian countries will be able to make atom bombs themselves, and it would be better for a greater number of countries to come into possession of atom bombs.<sup>29</sup>

China is believed to have sold unsafeguarded enriched uranium to countries such as South Africa and Argentina in the early 1980s, who at the time were not NPT members nor subject to IAEA safeguards.<sup>30</sup> Further, China also reportedly supplied heavy water to India, through a West German broker, which was ultimately for use in India's unsafeguarded nuclear reactors.<sup>31</sup> China has also been

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<sup>26</sup> van Leeuwen 1995, p. 127.

<sup>27</sup> Goldschmidt 1980, p. 75.

<sup>28</sup> Sloss 2006, p. 183.

<sup>29</sup> Marshal Chen Yi, Press Conference, 29 September 1965, cited in Dahlitz 1983, p. 144.

<sup>30</sup> Sloss 2006, pp. 190–191.

<sup>31</sup> Ibid.

accused of providing essential weapons-related nuclear aid directly to Pakistan as well as supplying Pakistan with weapons-grade highly enriched uranium.<sup>32</sup> During a visit to Pakistan in 1981, Premier Zhao Ziyang apparently implied having assisted in the manufacture of the 'Islamic atom bomb',<sup>33</sup> supporting claims of a more direct contribution by China to nuclear weapons proliferation. However, other reports suggest China has been unwilling to transfer actual nuclear-weapon technology to other countries, evidenced in such behaviour as the 'polite refusal' in response to a Libyan request to buy a nuclear bomb.<sup>34</sup>

There was a shift in China's public stance towards nuclear proliferation around the mid-1980s when it joined the IAEA, and subsequently the NPT and the Nuclear Suppliers Group (NSG) (discussed further below). For example, in 1984, Premier Zhao stated that while China had declined to accede to the NPT, it 'by no means favoured nuclear proliferation, nor would China engage in such proliferation by helping other countries to develop nuclear weapons'.<sup>35</sup> In 1985, Vice Premier Li Peng further stated that 'China has no intention, either at the present or in the future, to help nonnuclear countries develop nuclear weapons'.<sup>36</sup>

China's present view is that it does not support nuclear weapons proliferation. However, this has been subject to scepticism, particularly associated with claims China has continued to assist Pakistan with nuclear and missile technology, even after its accession to the NPT. In 1994, some 5,000 ring magnets, which are used in gas centrifuges and allow for the production of weapons-grade highly enriched uranium, were sold to the unsafeguarded A. Q. Khan research laboratory in Pakistan.<sup>37</sup> Further, over the period 1994–1996, while not involving the direct transfer of nuclear weapons or related technology, China is said to have provided other assistance to Pakistan which could have been used for nuclear weapons-related production.<sup>38</sup> In relation to the ring magnet sale, the US did not impose sanctions against China, relying on the fact there was no evidence the Chinese government had 'wilfully aided or abetted' Pakistan's nuclear weapons program via the ring magnet sale, and given China had promised to provide assistance to safeguarded facilities only and had reaffirmed its commitment to non-proliferation and agreed to consultations on export control and proliferation issues.<sup>39</sup>

Russia similarly denies any direct transfer of nuclear weapons technology to other States, even though it has faced accusations in this regard. It has provided support to North Korea to develop a civilian nuclear energy program; however, claims that this has extended to providing sensitive information on nuclear weapons

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<sup>32</sup> *Ibid.*, at p. 191.

<sup>33</sup> M. Goryanov, June 1981, cited in Dahlitz 1983, p. 144.

<sup>34</sup> K. Romachandran 1980, cited in Dahlitz 1983, p. 144.

<sup>35</sup> Tan 1989, p. 879.

<sup>36</sup> *Ibid.*

<sup>37</sup> Weiss 2003, p. 22.

<sup>38</sup> *Ibid.*

<sup>39</sup> *Ibid.*

development have been repeatedly denied by Russia. The former Director of Minatom, as an example, stated, in 1992, ‘The nuclear weapons complex of the USSR has never had anything to do with any possible nuclear weapons program in the DPRK. We do not control their potential work in this field’.<sup>40</sup> Zhebin suggests that so far as the Soviet Union was concerned, ‘being a great power, on equal footing with the U.N. Security Council’s other permanent members, it obviously had no interest in seeing nuclear weapons acquired by such an unpredictable and unreliable partner as the North Korean regime, especially from the early 1960s on’.<sup>41</sup> Reported incidents where action was taken to prevent proliferation, include blocking the departure of 64 Russian missile specialists to a third country that had intended to build military-purpose missile complexes capable of delivering nuclear weapons<sup>42</sup> and the detention of two North Korean citizens trying to sell heroin in order to raise money to buy Russian military secrets, apparently in the nuclear field.<sup>43</sup>

The United States has repeatedly questioned Russia’s commitment to enforcement of its statements around non-proliferation, imposing sanctions against certain entities and calling on Russia to increase its border security, better coordinate efforts to control the problem of nuclear smuggling, and ensure any illegal transfer of materials, including missile technology, is appropriately punished.<sup>44</sup> There have been suggestions that Russia could be found wanting in relation to assistance provided to Iran to construct nuclear reactors, having regard to reports that Iran was moving in the direction of achieving a nuclear weapons capability, and the fact that the assistance may have indirectly led to technology transfer which would facilitate a proliferator’s nuclear weapons program.<sup>45</sup> The suggestion that Russia may have in effect ‘turned a blind eye’ to intelligence on Iran’s nuclear motives raises the possibility of a willingness to skirt the obligations of Article I via a legalistic interpretation of the Treaty requirement.<sup>46</sup>

In relation to Iran, the US has acknowledged Russia’s statements that it does not support nor assist Iran in such initiatives as its ballistic missile program; however, the US has been critical in its calls for Russia to ensure that there is appropriate risk management of any seemingly benign cooperation with determined proliferators, such as Iran.<sup>47</sup> While highlighting concerns around the adequacy of

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<sup>40</sup> Cited in Zhebin 2000, p. 37.

<sup>41</sup> Zhebin 2000, p. 37.

<sup>42</sup> *Ibid.*, at p. 36.

<sup>43</sup> *Ibid.*

<sup>44</sup> See for example, United States House of Representatives, Resolution 457 on the Iran Missile Proliferation Sanctions Act of 1997, Congressional Record Volume 144, Number 73, 9 June 1998, pp. H4283–4.

<sup>45</sup> Weiss 2003, p. 22.

<sup>46</sup> See footnote 45.

<sup>47</sup> See for example, Testimony of Robert Einhorn, Deputy Assistant of Secretary of State for non-proliferation before the United States Senate Subcommittee on International Security, Proliferation, and Federal Services of the Committee on Government Affairs of the United States Senate, 5 June 1997.



Russian export controls, key US representatives have acknowledged that Russia itself is not interested in seeing other States acquire weapons of mass destruction (WMD), but suggest that its involvement in other nuclear technology transfer could inadvertently compromise non-proliferation efforts.<sup>48</sup>

With the benefit of hindsight, the NWS must reflect critically on what amounts to assistance in nuclear proliferation. As will be discussed further in this chapter, NWS providing nuclear technology assistance must be wary of the potential for alternative use and this has become a key concern of the non-proliferation community. Despite evidence of some actions potentially amounting to breaches of Article I, there appears to be a general commitment by the five NPT NWS not to contribute directly to proliferation, nor to overtly accuse one another of breaches, but rather to focus on related proliferation concerns, particularly the potential for inadvertent transfer or misuse of nuclear or dual-use materials. The changed security environment after the end of the Cold War has also raised new proliferation concerns, with heightened attention being paid to the need to address the security of nuclear facilities and materials and prevent the potential for non-State actors to access nuclear weapons. These issues are discussed in the [Sect. 2.4](#) of this chapter.

## 2.4 Non-Proliferation in the Post-Cold War Security Environment

It has been suggested that with the end of the Cold War, some of the controversies related to Article I and the transfer of nuclear weapons to NNWS have diminished.<sup>49</sup> As noted earlier in this essay, current proliferation concerns relate not only to the direct transfer of nuclear technology but also to indirect assistance. Further to this, at the time the NPT was negotiated, thinking on proliferation concerned the acquisition of nuclear weapons technology by States. After the end of the Cold War, the potential for nuclear proliferation has extended beyond traditional State parameters, and increasingly concerns around non-State actors' access to nuclear weapons technology, which is the area of focus. Thus, assistance in acquiring weapons has become a major concern, less from deliberate transfer of weapons, than through inadvertent transfer of technology or materials, from loss or theft or weapons and materials or through the unauthorised assistance of nuclear weapons scientists and engineers.<sup>50</sup> A related concern is the fear that NNWS may cooperate or share technology in support of nuclear weapons programs. Sources of transfer concerns of course also lie with those States outside of the NPT, that is Israel, India, Pakistan and—since its withdrawal from the NPT—North Korea.<sup>51</sup>

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<sup>48</sup> *Ibid.*

<sup>49</sup> Moore and Turner 2005, p. 537.

<sup>50</sup> *Ibid.*, at pp. 537–538.

<sup>51</sup> *Ibid.*, at p. 538.

Post-Cold War, nuclear proliferation has arguably had a renewed focus, and a major stated concern relates to the potential for proliferation to non-State actors. Many commentators have noted that the potential for terrorist groups to actually acquire and use a nuclear weapon is questionable, but access to more crude forms of nuclear weapons technology is not to be dismissed lightly. If the potential for non-State actors to access and use nuclear weapons is to be minimised, States, who have control over existing technology and fissile materials, must continue to exercise responsibility for preventing proliferation. Accordingly, in light of the concern over the potential for nuclear weapons to be transferred to non-State actors, the question whether there is a customary rule preventing the same is thus of critical importance. Equally, the will of the international community to enforce such a norm must be reviewed.

The role of the three non-NPT States is thus crucial in current international efforts to prevent nuclear weapons proliferation. Finding a place for India, Pakistan and Israel in the NPT regime has proved problematic, given the challenge of expecting them to renounce their nuclear programs in order to join the NPT. However, in the wake of the events of September 11, the US has shifted its approach to the non-NPT NWS, to enable it to better address concerns around the adequacy of security over materials.<sup>52</sup> As a result, the US lifted sanctions that had been in force against India and Pakistan as a response to their nuclear weapons development outside of the NPT. While also viewed as a reward for their cooperation in the war on terror, the lifting of sanctions previously designed to punish India and Pakistan acknowledged the nuclear *status quo* and had the effect that the US was able to engage more closely with these non-NPT States in relation to their security and control systems.<sup>53</sup>

The US-India Nuclear Deal warrants particular consideration in this regard. In July 2005, the US announced a strategic partnership with India, involving a commitment by India to subject its nuclear facilities to international monitoring and comply with international guidelines on the export of sensitive materials, in return for cooperation on sensitive dual-use nuclear technologies.<sup>54</sup> While India remains firmly outside the NPT regime, in the joint statement issued by the US President and Indian Prime Minister which formed the basis of the agreement, India agreed to:

... [refrain] from transfer of enrichment and reprocessing technologies to states that do not have them and supporting international efforts to limit their spread; and [ensure] that the necessary steps have been taken to secure nuclear materials and technology through comprehensive export control legislation and through harmonization and adherence to Missile Technology Control Regime (MTCR) and Nuclear Suppliers Group (NSG) guidelines.<sup>55</sup>

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<sup>52</sup> O'Neill 2008, p. 199.

<sup>53</sup> *Ibid.*, at pp. 199–200.

<sup>54</sup> *Ibid.*, at pp. 204–205.

<sup>55</sup> *Ibid.*, at p. 205.

As a result of the negotiated deal, the NSG has agreed to exempt India from the Group's Guidelines which restrict the export of nuclear material and technology to countries which accept IAEA safeguards. The impact is that civilian nuclear cooperation to India is now possible. In return, India made certain commitments on non-proliferation, including that it would comply with NSG Guidelines, place an additional six nuclear reactors under IAEA safeguards and continue its nuclear test moratorium. The agreement went a way towards formalising many voluntary commitments that India had made in relation to its nuclear weapons and related materials, particularly with regards to monitoring and export controls.<sup>56</sup>

The finalisation of the US-India Nuclear deal coincided with the increased emphasis by the US on the priority of non-proliferation over the other arms of the NPT relating to disarmament and peaceful use of nuclear energy. In this context, China has been careful to state that 'Non-proliferation efforts should not undermine the right of all countries, especially that of the developing countries to the peaceful uses of nuclear energy'.<sup>57</sup> Arguably, a side effect of the US-India Nuclear deal was the decision by China to assert the right to provide Pakistan with two power plants by relying on the grandfathering of an agreement which predated China's entry to the NSG.<sup>58</sup> Notably, China did not seek exemptions from the NSG Guidelines for Pakistan.

The issue of controlling the transfer of nuclear technology is heightened in view of contemporary security issues and the non-universality of the NPT, compounded further by the fact that the States who have remained outside the Treaty regime are all nuclear-weapons capable States. Cooperation and a commitment to non-proliferation by India, Pakistan and Israel, who have never signed up to obligations under the NPT, are crucial to the goal of preventing the acquisition of nuclear weapons capabilities by both States and non-State actors. The [Sect. 2.5](#) of this chapter reviews the policies and practice of those States in relation to horizontal proliferation and considers whether they could be viewed as having accepted the obligation not to transfer nuclear weapons and explosive devices to third parties.

## 2.5 Non-NPT States

While the NPT has reached near-universal status, the four States outside of the regime are all nuclear-weapon capable. The status of North Korea and its purported withdrawal from the NPT is problematic, but in relation to the remaining three

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<sup>56</sup> Gahlaut 2005.

<sup>57</sup> See for example, Working paper on the peaceful uses of nuclear energy submitted by China for the 2004 Preparatory Commission for the 2005 NPT Review Conference, NPT/CONF.2005/PC.III/WP.7.

<sup>58</sup> Abe 2009, p. 58.

States, India, Pakistan and Israel, it is useful to consider briefly their nuclear-weapon status and stated views and practice on non-proliferation. India, despite being a critic of the NPT regime, has voluntarily conformed with the obligation not to transfer nuclear technology, maintaining strict controls over nuclear and related sensitive exports.<sup>59</sup> India's objections to the NPT relate to the discriminatory manner with which the regime treats the balance of obligations between NWS and NNWS.<sup>60</sup> That view notwithstanding, India's management of its nuclear capability has become a means of demonstrating its good international citizenship, with its impeccable record of non-proliferation particularly evident in the face of the scandal faced by Pakistan following revelations its scientists had been at the centre of a clandestine network of nuclear exports.<sup>61</sup> India has also maintained the need for other States to meet their obligations, voting against Iran in the IAEA and opposing the North Korean decision to conduct nuclear tests, citing the danger of clandestine proliferation in response to North's October 2006 test.<sup>62</sup> Within the UN General Assembly's Committee dealing with disarmament and international security issues, India has also routinely introduced a resolution calling for the Conference on Disarmament to commence negotiations on a convention prohibiting the use or threat of use of nuclear weapons.<sup>63</sup> Its 'Reducing Nuclear Danger' resolution, first introduced in 1998, further calls for a review of nuclear doctrines and immediate and urgent steps to reduce the risk of unintentional and accidental use of nuclear weapons.<sup>64</sup>

Pakistan, like India, has expressed reservations over the NPT based on the inherent discriminatory nature of the Treaty, as well as the failure to make a concrete step towards complete nuclear disarmament.<sup>65</sup> During negotiation of the NPT, Pakistan had also called for explicit positive and negative security assurances from the NWS for all NNWS.<sup>66</sup> Notwithstanding its reservations, Pakistan supported the final draft of the NPT.<sup>67</sup> While it did not officially state as much, the fact Pakistan withheld its signature is considered to have been a reaction to the decision by India not to sign the NPT.<sup>68</sup> Pakistan currently outwardly subscribes to the position that it does not support proliferation, maintains appropriate safeguards in relation to its nuclear facilities and materials and imposes export controls in line with international standards. However, there is scepticism as to how robust are Pakistan's actions in this regard, given the significant contribution to nuclear weapons proliferation arising from the actions of the A. Q. Khan network. The concern for the international community relates to the

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<sup>59</sup> Gahlaut 2005.

<sup>60</sup> Rajagopalan 2008, p. 194.

<sup>61</sup> *Ibid.*, at pp. 193–194.

<sup>62</sup> *Ibid.*, at p. 207.

<sup>63</sup> Ministry of External Affairs, Government of India 2006–2007, p. 111.

<sup>64</sup> *Ibid.*

<sup>65</sup> Chakma 2009, p. 85.

<sup>66</sup> *Ibid.*

<sup>67</sup> *Ibid.*

<sup>68</sup> *Ibid.*

structural weaknesses in the Pakistani State which enabled the proliferation of nuclear weapons from Pakistani sources.<sup>69</sup> It has been argued that Pakistan should not continue to be penalised for the past, with its response to the Khan scandal resulting in upgraded security and oversight and the enactment of export control legislation.<sup>70</sup> Significantly, Pakistan has emphasised that Khan and his associates had acted independently of the government, and no official was involved or had authorised the transfer of nuclear technology.<sup>71</sup> Whether the actions of Khan and his associates could have occurred without some government knowledge has been questioned, however, the efforts of the government to distance itself from those actions are suggestive of a Pakistan that considers itself bound by the obligation not to contribute to proliferation. Further, the subsequent steps taken to enhance its legislative and policy framework over nuclear security are positive indications of Pakistan's official view that it has an obligation not to transfer nuclear weapons technology.

Israel has followed a policy of caution and constraint in relation to nuclear weapons, evident in the fact it has not ever explicitly acknowledged its nuclear status.<sup>72</sup> Israel maintains a policy of nuclear ambiguity and continues to pledge that it will not be the first to introduce nuclear weapons into the Middle East region, notwithstanding the universal understanding that it has a long-standing nuclear capability, probably superior to that of either India or Pakistan.<sup>73</sup> It complies with NSG guidelines and suggests that its export controls are as strict as India's.<sup>74</sup> Israel is also considered a willing participant in the Comprehensive Test Ban Treaty (CTBT).<sup>75</sup>

While not bound by the NPT Article I obligation not to transfer nuclear-weapons, it does appear that each of India, Pakistan and Israel do feel some compulsion not to do so. Arguably, action by the Security Council has also resulted in legal obligations for the non-NPT States (and others) to take certain steps to prevent the proliferation of nuclear weapons. In 2004, in the aftermath of the discovery of the A.Q. Khan global nuclear supply network, the Security Council, acting under Chapter VII of the UN Charter, adopted Resolution 1540, to address the issue of non-State actors acquiring weapons of mass destruction.<sup>76</sup> Resolution 1540 imposes a number of binding obligations aimed at the prevention of WMD proliferation. Obligations include the requirement to refrain from providing any form of support to non-State actors to develop, acquire, manufacture, possess, transport, transfer or use WMD and their delivery systems. It also requires States to adopt and enforce relevant domestic laws to prevent the proliferation of WMD and prohibit non-State actors from obtaining WMD. States are also required to enforce effective measures to

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<sup>69</sup> *Ibid.*, at pp. 121–124.

<sup>70</sup> Khan 2011, pp. 276–277.

<sup>71</sup> Chakma 2009, p. 104.

<sup>72</sup> Cohen 2008, p. 241.

<sup>73</sup> Evans and Kawaguchi 2009, p. 179.

<sup>74</sup> Abe 2009, p. 58.

<sup>75</sup> Evans and Kawaguchi 2009, p. 179.

<sup>76</sup> O'Neill 2008, p. 201.

establish domestic controls over relevant items to combat illicit trafficking and brokering in such items.

Resolution 1540 also established a Committee to report to the Security Council on the implementation of the resolution, and States were required to report to the Committee on steps they had taken or intended to take to implement the resolution. In their national reports, all of the NPT and non-NPT NWS affirmed their commitment to non-proliferation. Accordingly, Israel, India and Pakistan in their reports to the Resolution 1540 Committee also confirmed their commitment to non-proliferation and highlighted applicable laws and practices in this regard.

Israel indicated its policy is designed to prevent proliferation of WMD, with associated legislation and practices covering intelligence gathering and sharing, improving border controls, developing advanced detection and identification devices, enhancing facility security and export controls. Israel also highlighted its cooperation with multi-lateral export control regimes and support for international initiatives such as the Proliferation Security Initiative (PSI) and the Global Threat Reduction Initiative (GTRI).<sup>77</sup> A further report provided by Israel in December 2012 reiterated its commitment to act to prevent WMD proliferation, particularly to non-State actors.<sup>78</sup>

India similarly highlighted its commitment to prevent the proliferation of WMD and cited its ‘impeccable record in this respect’.<sup>79</sup> Its report noted its commitment to maintaining effective laws and domestic controls to prevent WMD proliferation and stated ‘India will not be a source of proliferation of sensitive technologies. India does not support, assist or encourage any State to develop weapons of mass destruction or their means of delivery’. It highlighted that it maintains a policy, with associated domestic laws, regulations and administrative measures, to strictly control export of nuclear- and missile-related materials and technologies. Updates provided in 2006 confirmed further legislative and regulatory mechanisms had been put in place to strengthen controls over WMD.<sup>80</sup>

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<sup>77</sup> United Nations Security Council, Security Council Committee established pursuant to resolution 1540 (2004), “Letter dated 22 November 2004 from the Permanent Representative of Israel to the United Nations addressed to the Chairman of the Committee”, 29 December 2004, S/AC.44/2004/(02)/84.

<sup>78</sup> United Nations Security Council, Security Council Committee established pursuant to resolution 1540 (2004), “Note verbale dated 10 December 2012 from the Permanent Mission of Israel to the United Nations addressed to the Chairman of the Committee”, 3 January 2013, S/AC.44/2013/1.

<sup>79</sup> United Nations Security Council, Security Council Committee established pursuant to resolution 1540 (2004), “Note verbale dated 1 November 2004 from the Permanent Mission of India to the United Nations addressed to the Chairman of the Committee”, 6 December 2004, S/AC.44/2004/(02)/62.

<sup>80</sup> United Nations Security Council, Security Council Committee established pursuant to resolution 1540 (2004), “Letter dated 16 January 2006 from the Permanent Representative of India to the United Nations addressed to the Chairman of the Committee”, 18 January 2006, S/AC.44/2004/(02)/62/Add.1; United Nations Security Council, Security Council Committee established pursuant to resolution 1540 (2004), “Letter dated 8 February 2006 from the Permanent Mission of India to the United Nations addressed to the Chairman of the Committee”, 18 February 2006, S/AC.44/2004/(02)/62/Add.2.

Pakistan's 2004 report confirmed that it fully supported appropriate and effective measures to prevent non-State actors from gaining access to WMD and their means of delivery and had instituted comprehensive administrative, legislative and security measures to ensure the safety and security of sensitive materials, facilities, technologies and equipment, which included the passage of new legislation to strengthen controls over the export of sensitive technologies.<sup>81</sup> Pakistan also noted that while not a Party to the NPT, it fulfilled its obligations as a 'responsible nuclear weapon state' and supported the objective of non-proliferation, through various administrative and legislative controls detailed in the report.

From their statements around horizontal proliferation, and related to the concern of the international community that terrorists may access nuclear weapons, it appears that India, Pakistan and Israel are publicly committed to the norm of non-proliferation and the obligation of the State not to transfer nuclear weapon technologies. This norm is also supported by a series of other international agreements that have been developed since the negotiation of the NPT, and which help to reinforce the regime which restricts cooperation in relation to nuclear weapons technology. These are summarised in the [Sect. 2.6](#) of this chapter.

## 2.6 Other Agreements Supporting Nuclear Non-Proliferation

The commitment to non-proliferation is supported through two groupings which control the export of nuclear source materials. The Zangger Committee commenced discussions in 1971 as to the nature of items that would trigger the NPT requirement for IAEA safeguards, with the agreed 'trigger list' first published in 1974.<sup>82</sup> The trigger list covers items falling within the scope of NPT Article III.2. The Nuclear Suppliers Group (NSG), which formed in 1975 after India detonated a nuclear explosive device, also developed guidelines applying to nuclear and nuclear-related exports, which were first published in 1978.<sup>83</sup> Whereas the Zangger Committee covers the export of equipment and materials, the NSG extends also to

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<sup>81</sup> United Nations Security Council, Security Council Committee established pursuant to resolution 1540 (2004); note verbale dated 3 June 2008 from the Permanent Mission of Pakistan to the United Nations addressed to the Chairman of the Committee, 3 August 2010, S/AC. 44/2007/19.

<sup>82</sup> IAEA Information Circular, Communication Received from Members Regarding the Export of Nuclear Material and of Certain Categories of Equipment and Other Material, 3 September 1974, INFCIRC/209.

<sup>83</sup> IAEA Information Circular, Communication Received From Certain Member States Regarding Guidelines for the Export of Nuclear Materials, Equipment or Technology, February 1978, INFCIRC/254.

technology for the development, production and use of items in the trigger list.<sup>84</sup> The objective of the NSG was to ensure that nuclear transfers for peaceful purposes would not be diverted to unsafeguarded nuclear fuel cycle or nuclear explosive activities.<sup>85</sup> In 1992, the NSG extended its guidelines to govern the export of nuclear-related dual-use items and technologies, that is, to items which have non-nuclear uses.<sup>86</sup> In 1994, the NSG further adopted the ‘Non-Proliferation Principle’ into its Guidelines, which provides that a supplier may only authorise a transfer if satisfied it would not contribute to the proliferation of nuclear weapons.<sup>87</sup>

In developing the Guidelines, the States making up the NSG argued that they assisted in the implementation of the NPT commitment not to proliferate, as the Guidelines operate so that a supplier State could refuse to transfer nuclear materials if it was believed they might be used to assist in nuclear weapons proliferation.<sup>88</sup> There is no formal treaty basis for either the Zangger Committee or the NSG. Suppliers implement the Guidelines in accordance with their national laws. The five NPT NWS are all members of the NSG. As noted above, each of Israel, India and Pakistan, while not NSG members, claims to comply with the Group’s Guidelines on nuclear and related exports.

Other voluntary arrangements also govern exports of nuclear-related materials, including the Missile Technology Control Regime (MTCR); the Hague Code of Conduct against the Proliferation of Ballistic Missiles (HCoC); and the Wassenaar Arrangement on Export Controls for Conventional Arm and Dual-Use Goods and Technologies. The goal of the MTCR is the non-proliferation of rockets and unmanned delivery systems, and participating States adhere to common export policy guidelines for a list of controlled items.<sup>89</sup> In addition to its 38 partners, a number of other States voluntarily adopt export licensing measures for items covered by the MTCR Guidelines. The HCoC aims at delegitimising ballistic missile proliferation, with general commitments to exercise ‘maximum possible restraint in the development, testing and deployment of Ballistic Missiles’ and where possible to ‘reduce national holdings of such missiles’, as well as not to contribute to, support or assist ballistic missile programmes in countries which

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<sup>84</sup> IAEA Information Circular, Communication received from the Permanent Mission of the Netherlands of behalf of the Member States of the Nuclear Suppliers Group, 29 November 2000, INFCIRC/539/Rev. 1 (Corr.), para 17.

<sup>85</sup> NSG, “History of the NSG”, <http://www.nuclearsuppliersgroup.org/Leng/01-history.htm>. Accessed 1 February 2013.

<sup>86</sup> The Dual-Use Guidelines were issued as an update to INFCIRC 254, see IAEA Information Circular, Communications received from certain Member States regarding guidelines for the export of nuclear material, equipment and technology, July 1992, INFCIRC/254/Rev. 1/Part 2.

<sup>87</sup> International Atomic Energy Agency, “Communication received from the Permanent Mission of the Netherlands of behalf of the Member States of the Nuclear Suppliers group”, 29 November 2000, INFCIRC/539/Rev. 1 (Corr.) at para 18.

<sup>88</sup> Simpson et al. 2010, pp. 1–8.

<sup>89</sup> The Missile Technology Control Regime (MTCR), <http://www.mtcr.info/english/index.html>.



might be developing or acquiring WMD in contravention of non-proliferation norms.<sup>90</sup> Participating States also commit to provide an annual declaration of their policies on ballistic missiles and space launch vehicles, and pre-launch notifications on ballistic missile and space launch vehicle launches and test flights.<sup>91</sup> The Wassenaar Arrangement promotes transparency in transfers of conventional arms and dual-use goods and technologies and includes export controls reporting on transfers and denials of specified controlled items.<sup>92</sup> China is the only NPT NWS not to have signed up to the MTCR, the HCoC and Wassenaar Arrangement. Israel, India and Pakistan adopt control lists for the export of goods, technologies, material and equipment related to nuclear weapons which encompass the lists and scope of controls maintained by the NSG and the MTCR.<sup>93</sup>

The NPT, under Article VII, also provides for States to conclude regional treaties in order to assure the total absence of nuclear weapons in their respective territories. A number of Nuclear-Weapon-Free Zones (NWFZs) have been established through a series of treaties, including the Treaty of Tlatelolco, which covers Latin America and the Caribbean, the Treaty of Rarotonga, which covers the South Pacific, the Treaty of Bangkok establishing the Southeast Asia NWFZ, the Treaty of Pelindaba which covers Africa and the Treaty on a NWFZ in Central Asia. In addition to these international agreements, Mongolia has self-declared its territory as nuclear-weapon free, which was recognised internationally through a UN General Assembly Resolution.<sup>94</sup> Efforts have also been made to reach agreement on a NWFZ in the Middle East, which was a key commitment made at the 1995 NPT Review and Extension Conference although negotiations in this regard have stalled. Governance of nuclear weapons in the Antarctic, Outer Space, on the Seabed and the Moon is also the subject of a series of Treaties.<sup>95</sup>

Protocols to each of the NWFZ Treaties provide for the NWS to undertake to not contribute to any act that would constitute a violation of the relevant Treaty, as

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<sup>90</sup> United Nations General Assembly, International Code of Conduct against Ballistic Missile Proliferation, A/57/724, 6 February 2003.

<sup>91</sup> HCoC 2012.

<sup>92</sup> Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies, Guidelines and Procedures, <http://www.wassenaar.org/guidelines/index.html>.

<sup>93</sup> See correspondence from each of Israel, India and Pakistan to the United Nations Security Council Committee established pursuant to resolution 1540 (2004): 29 December 2004, S/AC.44/2004/(02)/84; 3 August 2010, S/AC.44/2007/19; 6 December 2004, S/AC.44/2004/(02)/62; and the Public statement of the Nuclear Suppliers Group following its June 2010 Meeting in Christchurch: NSG\_CHR/Public Statement/FINAL.

<sup>94</sup> UNGA Res 55/33S.

<sup>95</sup> See the Antarctic Treaty; the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies; the Agreement Government the Activities of States on the Moon and Other Celestial bodies; and the Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor and in the Subsoil Thereof.

well as to abstain from the use or threatened use of nuclear weapons against the State Parties to the Treaties, or within the territory covered by each NWFZ. All of the NPT NWS have signed the relevant Protocols covering the territories of Latin America and the Caribbean, the South Pacific and Africa. However, the United States has not ratified the Protocols relating to the South Pacific and Africa. None of the NPT NWS have signed the Protocols to the Treaties on the Southeast Asia and Central Asia NWFZs.<sup>96</sup>

Work to develop a Fissile Material Cut-off Treaty (FMCT) has also been undertaken by the UN Conference on Disarmament, although agreement to date has proved elusive.<sup>97</sup> In December 1993, by resolution 48/75 L, the UN General Assembly unanimously called for the negotiation of a ‘non-discriminatory, multi-lateral and international effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices’.<sup>98</sup> A mandate calling for the establishment of an *ad hoc* committee within the Conference on Disarmament to negotiate a fissile material treaty was released on 24 March 1995.<sup>99</sup>

Because NNWS Parties to the NPT are already prohibited from producing or acquiring fissile material for weapons, a FMCT would effectively result in new restrictions for the five NPT NWS, and potentially for the NWS outside of the NPT. A major sticking point in negotiations has revolved around whether the ban on fissile material would cover existing stockpiles, which the five NPT NWS and India considered should be outside the ban.<sup>100</sup> Pakistan has been an obstacle to negotiations; primarily concerned that an FMCT which covered only future production, rather than existing stockpiles, would place it at a disadvantage compared to India and its superior nuclear stockpile.<sup>101</sup>

A number of other global initiatives have been developed in response to concerns around the threat of nuclear terrorism. In 1996, the UN General Assembly established an Ad Hoc Committee with responsibility for developing an International Convention for the Suppression of Terrorist Bombings, and subsequently an International Convention for the Suppression of Acts of Nuclear Terrorism.<sup>102</sup> Following negotiations on the scope of such a Convention, in 2005 the General Assembly adopted, without a vote, a resolution to which was annexed

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<sup>96</sup> See the United Nations Office for Disarmament, ‘Nuclear-Weapon-Free-Zones’, <http://www.un.org/disarmament/WMD/Nuclear/NWFZ.shtml>. Accessed 2 February 2013.

<sup>97</sup> UNIDIR 2010, p. ix.

<sup>98</sup> United Nations General Assembly, ‘Prohibition of the Production of Fissile Material for Nuclear Weapons or Other Nuclear Explosive Devices’, 81st plenary meeting, 16 December 1993, Resolution A/RES/48/75.

<sup>99</sup> UNIDIR 2010, p. 2.

<sup>100</sup> Ibid.

<sup>101</sup> Arms Control Association, ‘Fissile Material Cut-off Treaty (FMCT) at a Glance’, <http://www.armscontrol.org/factsheets/fmct>. Accessed 20 January 2013.

<sup>102</sup> United Nations General Assembly Resolution 51/210, ‘Measures to eliminate international terrorism’, 17 December 1996.

the International Convention for the Suppression of Acts of Nuclear Terrorism.<sup>103</sup> The Convention essentially criminalises nuclear terrorist acts and the State Parties commit to adopting measures to prohibit such acts and to protect nuclear materials. The Convention entered into force on 7 July 2007. All of the NPT NWS are signatories, although the United States and France are yet to ratify the Convention. Israel and India have also signed and ratified the Convention.

In 2003, the United States encouraged the formation of the Proliferation Security Initiative (PSI), which aims to stop the trafficking of WMD and their delivery systems and related materials to States and non-State actors of proliferation concern. A set of interdiction principles were formulated which PSI participants commit to, in an attempt to ‘establish a more coordinated and effective basis through which to impede and stop shipments of WMD, delivery systems and related materials’.<sup>104</sup> The PSI includes over 100 participants, including France, Russia, Israel and the United Kingdom. China, India and Pakistan have not joined the initiative to date. While not participating in the PSI, China states that it is ‘firmly opposed to proliferation of WMD and their means of delivery and stands for the attainment of the non-proliferation goal through political and diplomatic means’ and further that it ‘understands the concern of the PSI participants ... and shares the non-proliferation goal of the PSI’.<sup>105</sup> It states that it supports the cooperation among PSI participants within the framework of international law, but is ‘concerned about the possibility that the interdiction activities taken by PSI participants might go beyond the international law’.<sup>106</sup> India also is reportedly concerned at the legality of the PSI.<sup>107</sup>

In 2009, the Security Council unanimously adopted Resolution 1887 in which it emphasised the primary role of the Security Council in addressing nuclear threats and that all situations of non-compliance with nuclear non-proliferation obligations should be brought to its attention so it can determine if the situation constitutes a threat to international peace and security. Resolution 1887 covered a series of issues relating to nuclear weapons, but relevantly to non-proliferation, the Council called on States to adopt stricter national controls for the export of sensitive goods and technologies of the nuclear fuel cycle. It further called upon States to improve their national capabilities to detect, deter and disrupt illicit trafficking in nuclear materials throughout their territories.<sup>108</sup>

The Security Council has also extended the mandate of the 1540 Committee several times, most recently in 2011 for a period of 10 years. Resolution 1977

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<sup>103</sup> United Nations General Assembly Resolution 59/290, ‘International Convention for the Suppression of Acts of Nuclear Terrorism’, 13 April 2005.

<sup>104</sup> Office of the Press Secretary, The White House 2003.

<sup>105</sup> Ministry of Foreign Affairs of the People’s Republic of China.

<sup>106</sup> *Ibid.*

<sup>107</sup> Belcher 2011, p. 9.

<sup>108</sup> United Nations Security Council Resolution 1887 (2009).

(2011) included affirmation by the Security Council of the view that the proliferation of WMD and their means of delivery constituted a threat to international peace and security and the need for all States to comply fully with their obligations and commitments in relation to arms control, disarmament and non-proliferation of WMD.<sup>109</sup>

The 2010 Nuclear Security Summit (NSS), an initiative of the US Obama Administration, was notable for its achievement in bringing together representatives from 47 states, including all known NWS other than North Korea, as well as the European Union, the IAEA and the UN. The Communique issued at the conclusion of the Summit noted that ‘nuclear terrorism is one of the most challenging threats to international security’ and that ‘success will require responsible national actions and sustained and effective international cooperation’.<sup>110</sup> Among other things, the Communique called for improving security and accounting of fissile materials, encouraging efforts to secure radioactive substances, universalising key treaties and sharing best practice for nuclear security.<sup>111</sup> While commitments to enhancing domestic security provisions or to work bilaterally or multilaterally to improve global provisions were made by some 30 States, these were offered voluntarily, with no formal mechanism for evaluating implementation of those commitments.<sup>112</sup> While it has been suggested that there is little appetite at the international level, particularly among developing states, for ambitious schemes addressing nuclear security, the outcomes of the NSS are further evidence of a general acceptance as to the desirability of security of nuclear materials and, consequently, prevention of proliferation.

A further NSS was hosted by South Korea in 2012, again with representatives of all nuclear weapon capable States, but for North Korea. The 2012 Communique encouraged universal adherence to the Convention for the Suppression of Acts of Nuclear Terrorism and the Convention on the Physical Protection of Nuclear Material.<sup>113</sup> It also expressed support for UN Security Council Resolution 1540 and the extension of the 1540 Committee mandate, pursuant to Resolution 1977. The Communique further recognised the importance of security of nuclear facilities and materials and further encouraged efforts to combat illicit trafficking and to effectively prosecute offences.

The significance of the initiatives outlined in this section is their role in reinforcing the non-proliferation norm applicable both to the NWS under Article I of the NPT and followed by States outside of the NPT regime. This is particularly noteworthy in light of the challenge presented by trying to bring Israel, India and Pakistan

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<sup>109</sup> United Nations Security Council Resolution 1977 (2011), 6518th meeting, 20 April 2011, S/RES/1977 (2011).

<sup>110</sup> Office of the Press Secretary, The White House 2010.

<sup>111</sup> Ibid.

<sup>112</sup> Bowen 2012, p. 365.

<sup>113</sup> With the exception of North Korea, all of the NPT and non-NPT NWS are party to the Convention on the Physical Protection of Nuclear Material.

within the framework of the NPT, or to negotiate some alternative agreement. Further, the negotiation of various agreements supporting non-proliferation is not hampered by the fact these three States are outside the NPT, and while all agreements are not universally subscribed to, comments by each of the NWS on the subject of non-proliferation, including security of materials and appropriate export controls, give weight to the view that the obligation not to transfer nuclear weapons or related devices extends to States outside of the NPT.

## 2.7 Conclusion

Article I of the NPT was originally devised to address the potential for horizontal proliferation of nuclear weapons by existing NWS. Subsequent to the entry into force of the NPT, other States have acquired nuclear weapon capabilities. While achieving universal membership of the NPT is a laudable goal, in that it would assist with contemporary problems, such as prevention of terrorist and non-State actor access to nuclear weapons and technology, in terms of the obligations of the NWS under Article I, this chapter has suggested there may already be a norm forming in this regard.

Significantly, compliance by the NWS with their obligations under the NPT relies not on enforcement, but rather on voluntary compliance. It has been suggested that the fundamentally voluntary nature of compliance with the provisions of the NPT is a drawback of the Treaty, in light of its lack of any formal mechanism to compel compliance and punish non-compliance.<sup>114</sup> In light of this shortcoming, ensuring related compliance by States outside of the NPT similarly relies on voluntary restraint.

The Security Council has taken steps to identify that nuclear weapon proliferation and threats arising from nuclear terrorism pose a threat to international security and required States to take steps to ensure effective control over sensitive materials and to prevent terrorists from acquiring access to WMD or associated technology. Further to obligations arising from Security Council resolutions, if it is accepted that the NPT and related instruments have helped to nurture a norm of non-proliferation, it will be important that any future failures to comply with the responsibility not to transfer nuclear weapon technology are appropriately and consistently responded to.<sup>115</sup> Challenges related to the potential for inadvertent technology transfer or assistance will also need to be managed sensitively, to ensure that efforts to comply with the non-proliferation obligation do not unduly impinge on the NPT bargain, that is that access to peaceful, civil nuclear technologies for States parties in good standing should be assured. Accordingly, going

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<sup>114</sup> Keeley 1998, p. 23; Zhao 2012, pp. 194–195.

<sup>115</sup> Weiss 2003, p. 21.

forward, mechanisms to balance these competing interests will need to be devised and followed by the international community.

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